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April 4, 2005

Mr. Donald C. Howard, Regional Supervisor Field Operations  
Minerals Management Service  
Gulf of Mexico OCS Region  
1201 Elmwood Park Blvd.  
New Orleans, Louisiana 70123

Attention: Mr. Alex Alvarado  
MS 5232

RE: Application for 8-Inch Bulk Gas Right-of-Way Pipeline (Spiderman 8" East Flowline) to be installed in the Desoto Canyon and Mississippi Canyon Areas, OCS Federal Waters, initiating in Desoto Canon Area Block 621 and terminating in Mississippi Canyon Area Block 920 at a proposed Floating Production Platform (Independence Hub), Gulf of Mexico, Federal Waters.

Gentlemen,

Pursuant to the authority granted Section 5 (e) the Outer Continental Shelf Lands Act (67 Stat. 462) (43 U.S.C. 1331), as amended (92 Sta. 629), and in compliance with the regulations contained in Title 30 CFR Part 250 Subpart J, Anadarko Petroleum Corporation (Anadarko) is filing this application, in quadruplicate (original and three copies), for a Right-of-Way two hundred feet (200') in width for the construction, maintenance and operation of a 8-inch bulk gas pipeline to be installed in and/or through Desoto Canyon Area Blocks 621, 620, 664, 708, 752, 751, 795, 794, 793 and 837; Mississippi Canyon Area Blocks 877, 921, and 920, OCS Federal Waters, Gulf of Mexico. Anadarko agrees that said Right-of-Way, if approved, will be subject to the terms and conditions of said regulations.

The bulk gas pipeline, which is approximately 25.48 miles 134,514 feet long, will be utilized to transport bulk gas production from a subsea Manifold, located in DC-621 to the proposed floating production platform located in MC-920.

Anadarko will be the designated operator of the subject Right-of-Way bulk gas pipeline. The proposed pipeline will be designed, constructed operated and maintained in accordance with Title 30 CFR Part 250. The pipeline is to be located in a maximum water depth of 8,080 feet and a minimum water depth of 7,913 feet. Since the entire pipeline is in water depths in excess of 200 feet, the pipeline will be installed without burial below the seabed.

Installation of the proposed bulk gas pipeline will be accomplished by utilizing a Dynamically Positioned (DP) lay vessel and will not require the use of anchors for positioning. The estimated project duration is a total of 30 days commencing with pipeline installation around November 1, 2005 (21 days), followed by installation of the Steel Catenary Riser (SCR) installation around August 1, 2006. Startup is expected around July 1, 2007.

The operations base for Anadarko is located in Houma, Louisiana. During construction for this project, the base of operations will be Fourchon, Louisiana.

The proposed pipeline crosses thirteen (13) Desoto Canyon and Mississippi Canyon blocks (Desoto Canyon Area Blocks 621, 620, 664, 708, 752, 751, 795, 794, 793 and 837; Mississippi Canyon Area Blocks 877, 921, and 920). The pipeline does not cross any pipelines. In accordance with applicable regulations, Anadarko has forwarded a copy of this proposed pipeline application by Certified Mail, Return Receipt Requested, to each designated Oil and Gas Lease Operator whose lease is so affected. Copies of these letters and copies of the unsigned requested Return Receipt are attached for reference. A list of Designated Operators and Right-of-Way or Easement Holders is also attached. Copies of the Return Receipts showing dates and signatures as evidence of service upon such Operators and Right-of-Way or Easement Holders will be forwarded to your office upon receipt. In the event Anadarko cannot obtain completed return receipt cards, we understand that a letter from the Lessee expressing no objection to the proposed project is acceptable. In order to expedite the permit process, Anadarko has requested a letter from the Operator expressing no objection to the proposed project. When obtained, these letters will be forwarded to your office.

The proposed route of the Right-of-Way does not adjoin or subsequently cross state-submerged lands.

Anadarko hereby certifies that the proposed activity described in this application complies with and will be conducted in a manner consistent with the Coast Management Program for the states of Louisiana, Mississippi, and Florida. A copy of the letters and consistency certificates are attached for your files.

C&C Technologies conducted a pipeline Pre-Lay Survey and Hazards Study for the proposed Operations. The survey report prepared by C&C Technologies, and submitted with this application, identifies side-scan sonar contacts within the surveyed area. The coordinates of the side scan sonar contacts will be recorded into the installation vessels on-board navigation and position system and avoided during pipelay. Anadarko has reviewed the hazard survey and will comply with all recommendations found therein.

This pipeline will be inspected after installation on the seabed, by use of a Remote Operated Vehicle (ROV), to determine if any spanning has occurred. Any excessive spanning will be rectified by installing adequate supports or Vortex Induced Vibration (VIV) suppression. The location of any spans will be identified, reported, and records maintained in Anadarko's as-built construction report.

If any site, structure or object of historical or archaeological significance should be discovered during the conduct of any operations within the permitted Right-of-Way, Anadarko shall report such findings immediately, to the Director, Gulf of Mexico OCS Region, and make every reasonable effort to preserve and protect the cultural resources from damage until the Director has given directions as to its preservation.

The calculated worst-case discharge for the proposed Right-of-Way Oil Pipeline is less than 1,000 barrels. Worst-case Oil Spill calculations are included in Attachment B, Item No. 22.

Please refer to your New Orleans Miscellaneous File No. 981 for a copy of a resolution approved by the Board of Directors authorizing the undersigned to sign for and on behalf of Anadarko. Additionally, Anadarko has an approved \$300,000 Right-of-Way Grant Bond (Bond No. 945480) on file with the MMS, covering installation of right-of-way pipelines in Federal Waters, Gulf of Mexico.

Applicant agrees to be bound by the foregoing regulations, and further agrees to comply with the application stipulations as set forth in Title 30 CFR 250 (Subpart J).

Anadarko requests the following departures:

1. Anadarko hereby requests a waiver from NTL 98-20, Section IV.B, which requires the buoying of all existing pipeline(s) and other potential hazards located within 150 meters (490 feet) of the proposed operations. Utilizing the on-board graphic system during construction operations, Anadarko will comply with the recommended avoidance criteria of any magnetic anomalies found in the Pipeline Pre-Lay Survey Report along the proposed pipeline route.
2. The American National Standards Institute (ANSI) B31.8 design code and 30 CFR 250 will be used in setting the internal design pressure for the steel pipe used in the pipeline and riser. Where ANSI B31.8 does not provide specific guidance, a limit state design philosophy will be adopted. API RP 1111 will be referred to for external pressure collapse calculations, as B31.8 does not adequately address these for deepwater applications. For this reason, Anadarko hereby requests approval for the utilization of API RP 1111 for the design against collapse of the pipeline due to external hydrostatic pressure. Pertinent calculations are included for reference.
3. Anadarko hereby requests a waiver from recording magnetometer data as part of the shallow hazards survey in water depths beyond 600 feet.

In support of our application and for your review and use, the following exhibits have been enclosed herewith and made a part hereof:

1. Attachment A - List of Lease Operators and Right-of-Way Holders
2. Attachment B - Pipeline Design Criteria
3. Attachment C - Copies of Nondiscrimination in Employment statement (one original & three copies)
4. General Permit Information:
  - a. Attachment D - Vicinity Layout
  - b. Attachment E - Route and Profile Maps
  - c. Attachment F - Safety Flow Schematic
  - d. Attachment G - Steel Catenary Riser at MC-920
5. Attachment H - Copies of Lease and Pipeline crossing "Request for No Objection" letters and requested Return Receipts.
6. Attachments I - Copies of the affected states Consistency Certification and letter of request for determinations.
7. Enclosure 1 - MMS Checklist.
8. Enclosure 2 - Check in the amount of \$4,300.00 of which \$2,350.00 covers the application fee and \$1,950.00 covers the five years' rental payment (at \$390.00 per year) on 25.48 miles of Right-of-Way.

9. Enclosure 3 - High Resolution Geophysical Survey Report (plus one CD with ASCII file for the flowline route) prepared by C&C Technologies. Additional copies of the CD are found in the inside cover of the Survey Report

Anadarko hereby agrees to keep open at all reasonable times for inspection by the Minerals Management Service, the area covered by this Right-of-Way and all improvements, structures, and fixtures thereon and all records relative to the design, construction, operation, maintenance and repairs, or investigations on or with regard to such area.

Contacts on technical points or other information should be directed to:

Susan Hathcock  
Anadarko Petroleum Corporation  
P.O. Box 1330  
Houston, TX 77251-1330  
(832) 636-8758  
susan\_hathcock@anadarko.com

Your efforts to approve the installation of the subject pipeline in a timely fashion would be most appreciated.

Very truly yours,



Richard E. Stites  
Agent & Attorney-in-Fact

Attachments and Enclosures

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**MMS PERMIT APPLICATION****ATTACHMENT A****LIST OF LEASE OPERATORS AND RIGHT OF WAY HOLDERS****ANADARKO PETROLEUM CORPORATION****8-INCH BULK GAS PIPELINE****DESOTO CANYON AREA BLOCK 621 TO MISSISSIPPI CANYON AREA BLOCK 920 PROPOSED  
PLATFORM**

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**A. Lease Operators****8" Bulk Gas Pipeline**

The following lease operators are being notified of the proposed pipeline route in accordance with the "No Objection" requirements:

BLOCK	LEASE	LEASE HOLDER
DC - 621	OCS-G-23529	Anadarko Petroleum Corporation
DC - 620	OCS-G-23528	Anadarko Petroleum Corporation
DC - 664	OCS-G-23532	Marathon Oil Company
DC - 708		Open
DC - 752		Open
DC - 751	OCS-G-25862	Dominion Exploration & Production, Inc.
DC - 795		Open
DC - 794	OCS-G-10470	Murphy Exploration & Production Company - USA
DC - 793	OCS-G-10469	Murphy Exploration & Production Company - USA
DC - 837	OCS-G-10474	Mobil Oil Exploration & Producing Southeast Inc.
MC - 877		Open
MC - 921	OCS-G-20010	Murphy Exploration & Production Company - USA
MC - 920		Open

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**B. Pipeline Operators**

The following pipeline operators are being notified of the proposed pipeline route in accordance with the "No Objection" requirements:

ROW HOLDER	PIPELINE SIZE/PRODUCT	OCS ROW NO.	SEG. NO.	AREA/BLOCK
None				

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**8-INCH BULK GAS PIPELINE**

**DESOTO CANYON AREA BLOCK 621 TO MISSISSIPPI CANYON AREA BLOCK 920 PROPOSED PLATFORM**

**A. INTRODUCTION**

This proposed 8-inch bulk gas pipeline will be utilized to transport production from the "Spiderman" Field located in the DeSoto Canyon Area, Gulf of Mexico. This pipeline will be part of an overall gathering system for this field, as part of the Independence Project and is shown on the attached Safety Flow Schematic.

**B. DESIGN INFORMATION**

Design of the flowline system will be in accordance with 30 CFR 250. The maximum wellhead Shut-in Tubing Pressure( SITP) for any source for this pipeline is 7,700 psig, which is less than the design pressure of 8100 psig. When applicable, the effects of external pressure in the design are considered.

1. Product to be transported: Bulk Gas
2. Pipeline and Riser Specifications:

PARAMETER	PIPELINE	STEEL CATENARY RISER (SCR) AT MC - 920
Water Depth Range	8080 to 7913 ft.	0 - 7913 ft.
Length (ft)	125,514 ft. <sup>note 1</sup>	14,000 ft. (9000 ft. Horiz. Proj.) <sup>note 1</sup>
Outside Diameter (in)	8.625	8.625
Wall Thickness (in)	0.675	0.950
Buckle Arrestors (in)	0.812	
Material	API 5L	API 5L
Grade	X-65	X-65

Notes: 1. Total Right of way length is 134,514 ft.

3. Type of Cathodic Protection:
  - a. Sacrificial Anode System (480 foot spacing)
  - b. Type of Anode: Aluminum-Indium-Zinc Alloy
  - c. Two (2) additional anodes will be placed at each end of the pipeline and at each pipeline crossing.
  - d. Unit weight of anode: 72.7 lbs
  - e. Platform anodes will not be used to protect the pipeline.
  - f. Pipeline anode life: 20 years

Based on the formula:  $Le_{(p/1)} = 3.82 \times 10^4 \times w^0 / DIR$

Where:

$Le_{(p/1)}$  = Life expectancy (years)  
 $w^0$  = Weight of anode unit (lbs)  
D = Diameter of pipe (inches)

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I = Separation between anodes (ft)

R = Rate of consumption (lbs/amp year) = 7.42 lbs/amp year

$$Le_{(p/1)} = (3.82 \times 10^4)(72.7)/[(8.625)(480)(7.42)] = 90.4 \text{ years}$$

4. Water Depth: Minimum of 7,913 feet at MC-920 proposed platform  
Maximum of 8,080 feet

5. Description of Protective Coating:

a. Pipeline:

Fusion Bonded Epoxy (FBE) -Minimum 14-16 mils  
Concrete Weight Coating (CWC) - None.

b. Riser:

Below Water: Minimum 18 mils of Fusion Bonded Epoxy (FBE) coating plus 2.5 to 4 mils of "Rough Coat" FBE coating. An abrasion resistant coating will be installed for 1000-ft. either side of the SCR touchdown location.

Splash Zone: 0.500 in. of Vulcanized Neoprene

Above Water: 10 mils (3 coat paint system; 2.5 mils Inorganic Zinc, 5 mils Multipurpose Epoxy, 2.5 mils Aliphatic Polyurethane)

6. Internal Corrosion Protection: The pipeline will be monitored for corrosion and a chemical injection program instituted if necessary. The pipeline will not be designed for pigging. However, the pipeline will be suitable for pigging if necessary later.

7. Specific Gravity: SG = weight in air (empty) / water displacement (in seawater)

Description:	Air Weight (lb/ft)	Water Displacement (lb/ft)	Sub-merged Empty Weight (lb/ft)	Pipeline/Riser Specific Gravity
<b>PIPELINE</b> Line Pipe: 8.625" O.D. X 0.675" W.T. with FBE Coat.	57.75	26.09	31.65	2.21
<b>SCR</b> 8.625" O.D. X 0.950" W.T. with FBE Coat.	78.33	26.09	52.23	3.00

8. Specific Gravity of Gas (Air = 1.0): 0.65

9. Design Capacity for Pipeline: 150 MMSCFD



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Condensate Rate: 2 BBL/MMSCF

#### 10. Flowline System Shut-in Pressure:

The following calculations determine the shut-in pressures between the (+)100-ft. elevation at the host platform (MC-920) and the base of the flowline (-)8,080-ft. For conservatism, the maximum shut-in tubing pressure for any source is utilized and a conservative Methane gas unit weight at shut-in tubing pressure of 15 lb/ft<sup>3</sup> is assumed.

$$\Rightarrow P_{shut-in} = 8,100 \text{ psig (Wellhead Shut-in Tubing Pressure)} - (\Delta \text{Elevation from max wd}) \left( \frac{15 \text{ lb}}{\text{ft}^3} \right) \left( \frac{\text{ft}^2}{144 \text{ in}^2} \right)$$

$$\text{Host Platform + 100 MSL} \Rightarrow P_{shut-in} = 8,100 \text{ psig (Wellhead Shut-in Tubing Pressure)} - (8,180 \text{ ft}) \left( \frac{15 \text{ lb}}{\text{ft}^3} \right) \left( \frac{\text{ft}^2}{144 \text{ in}^2} \right) = 7,248 \text{ psig}$$

$$\text{Riser - 0 fsw} \Rightarrow P_{shut-in} = 8,100 \text{ psig (Wellhead Shut-in Tubing Pressure)} - (8,080 \text{ ft}) \left( \frac{15 \text{ lb}}{\text{ft}^3} \right) \left( \frac{\text{ft}^2}{144 \text{ in}^2} \right) = 7,258 \text{ psig}$$

$$\text{Riser - 7913 fsw} \Rightarrow P_{shut-in} = 8,100 \text{ psig (Wellhead Shut-in Tubing Pressure)} - (167 \text{ ft}) \left( \frac{15 \text{ lb}}{\text{ft}^3} \right) \left( \frac{\text{ft}^2}{144 \text{ in}^2} \right) = 8,083 \text{ psig}$$

$$\text{Flowline - 7913 fsw} \Rightarrow P_{shut-in} = 8,100 \text{ psig (Wellhead Shut-in Tubing Pressure)} - (167 \text{ ft}) \left( \frac{15 \text{ lb}}{\text{ft}^3} \right) \left( \frac{\text{ft}^2}{144 \text{ in}^2} \right) = 8,083 \text{ psig}$$

$$\text{Flowline - 8,080 fsw} \Rightarrow P_{shut-in} = 8,100 \text{ psig (Wellhead Shut-in Tubing Pressure)} - (0 \text{ ft}) \left( \frac{17.48 \text{ lb}}{\text{ft}^3} \right) \left( \frac{\text{ft}^2}{144 \text{ in}^2} \right) = 8,100 \text{ psig}$$

#### 11. Hydrostatic Test Pressure:

The Hydrostatic Test pressure and duration at the (+) 100-ft elevation at the Host platform will be 9100 psig and 8 hours respectively. This test pressure is based on the meeting 125% of the Maximum Shut-in pressure at any location of the flowline system.

##### Required Hydrostatic Test Pressure

The hydrostatic test pressure is calculated below to ensure that the minimum required test pressure of 125% of the shut-in tubing pressure at any location within the flowline system is met. The calculations below determine the required hydrostatic test pressures at all locations of the flowline.

$$\text{Test Pressure at Host Platform + 100 MSL} \Rightarrow P_{req \text{ hyd}} = 7,248 \text{ psig} \times (125\%) = 9,060 \text{ psig}$$

$$\text{Riser - 0 fsw} \Rightarrow P_{req \text{ hyd}} = 7,258 \text{ psig} \times (125\%) = 9,073 \text{ psig}$$

$$\text{Riser - 7913 fsw} \Rightarrow P_{req \text{ hyd}} = 8,083 \text{ psig} \times (125\%) = 10,104 \text{ psig}$$

$$\text{Flowline - 7913 fsw} \Rightarrow P_{req \text{ hyd}} = 8,083 \text{ psig} \times (125\%) = 10,104 \text{ psig}$$

$$\text{Flowline - 8,080 fsw} \Rightarrow P_{req \text{ hyd}} = 8,100 \text{ psig} \times (125\%) = 10,125 \text{ psig}$$

##### Minimum Hydrostatic Test Pressure

Based on the above calculations, the minimum hydrostatic test pressure at the top of riser ((+) 100-ft) will ensure that the required hydrostatic test pressure at all locations of the flowline are met. The minimum Hydrostatic test pressure of 9,060 psig will be maintained at the (+) 100-ft. elevation. The calculations below show the actual minimum hydrostatic test pressure at all locations along the flowline, accounting for seawater as the hydrotest medium (64 lb/ft<sup>3</sup>).

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$$\Rightarrow P_{\min hyd} = 9,060 \text{ psig} + (\Delta \text{Elevation from (+) } 100 \text{ ft}) \left( \frac{64 \text{ lb}}{\text{ft}^3} \right) \left( \frac{\text{ft}^2}{144 \text{ in}^2} \right)$$

$$\text{Host Platform} + 100 \text{ MSL} \Rightarrow P_{\min hyd} = 9,060 \text{ psig} + (0 \text{ ft}) \left( \frac{64 \text{ lb}}{\text{ft}^3} \right) \left( \frac{\text{ft}^2}{144 \text{ in}^2} \right) = 9,060 \text{ psig}$$

$$\text{Riser} - 0 \text{ fsw} \Rightarrow P_{\min hyd} = 9,060 \text{ psig} + (100 \text{ ft}) \left( \frac{64 \text{ lb}}{\text{ft}^3} \right) \left( \frac{\text{ft}^2}{144 \text{ in}^2} \right) = 9,104 \text{ psig}$$

$$\text{Riser} - 7913 \text{ fsw} \Rightarrow P_{\min hyd} = 9,060 \text{ psig} + (8013 \text{ ft}) \left( \frac{64 \text{ lb}}{\text{ft}^3} \right) \left( \frac{\text{ft}^2}{144 \text{ in}^2} \right) = 12,621 \text{ psig}$$

$$\text{Flowline} - 7913 \text{ fsw} \Rightarrow P_{\min hyd} = 9,060 \text{ psig} + (8013 \text{ ft}) \left( \frac{64 \text{ lb}}{\text{ft}^3} \right) \left( \frac{\text{ft}^2}{144 \text{ in}^2} \right) = 12,621 \text{ psig}$$

$$\text{Flowline} - 8,080 \text{ fsw} \Rightarrow P_{\min hyd} = 9,060 \text{ psig} + (8180 \text{ ft}) \left( \frac{64 \text{ lb}}{\text{ft}^3} \right) \left( \frac{\text{ft}^2}{144 \text{ in}^2} \right) = 12,695 \text{ psig}$$

**Effective Hydrostatic Test Pressure**

Allowing for external pressure differential, the effective hydrostatic test pressure at any location of the flowline are calculated below. This effective hydrostatic test pressure will be utilized to determine the requirement to maintain a hoop stress of less than 95% of the specified minimum yield strength in the flowline system (section 14).

$$\Rightarrow P_{\text{eff hyd}} = P_{\min hyd} - \text{Water Depth (ft)} \left( \frac{64 \text{ lb}}{\text{ft}^3} \right) \left( \frac{\text{ft}^2}{144 \text{ in}^2} \right)$$

$$\text{Host Platform} + 100 \text{ MSL} \Rightarrow P_{\min hyd} = 9,060 \text{ psig} - (0 \text{ ft}) \left( \frac{64 \text{ lb}}{\text{ft}^3} \right) \left( \frac{\text{ft}^2}{144 \text{ in}^2} \right) = 9,060 \text{ psig}$$

$$\text{Riser} - 0 \text{ fsw} \Rightarrow P_{\min hyd} = 9,104 \text{ psig} - (0 \text{ ft}) \left( \frac{64 \text{ lb}}{\text{ft}^3} \right) \left( \frac{\text{ft}^2}{144 \text{ in}^2} \right) = 9,104 \text{ psig}$$

$$\text{Riser} - 7913 \text{ fsw} \Rightarrow P_{\min hyd} = 12,621 \text{ psig} - (7913 \text{ ft}) \left( \frac{64 \text{ lb}}{\text{ft}^3} \right) \left( \frac{\text{ft}^2}{144 \text{ in}^2} \right) = 9,104 \text{ psig}$$

$$\text{Flowline} - 7913 \text{ fsw} \Rightarrow P_{\min hyd} = 12,621 \text{ psig} - (7913 \text{ ft}) \left( \frac{64 \text{ lb}}{\text{ft}^3} \right) \left( \frac{\text{ft}^2}{144 \text{ in}^2} \right) = 9,104 \text{ psig}$$

$$\text{Flowline} - 8,080 \text{ fsw} \Rightarrow P_{\min hyd} = 12,695 \text{ psig} - (8080 \text{ ft}) \left( \frac{64 \text{ lb}}{\text{ft}^3} \right) \left( \frac{\text{ft}^2}{144 \text{ in}^2} \right) = 9,104 \text{ psig}$$

**12. Internal Design Pressure of Flowline:**

The flowline and riser pipe design pressure and subsequent pipe wall thickness requirements are based on the design equation as required in 30CFR250, Subpart J. The maximum shut-in tubing pressure at any wellhead source is 7,700 psig, and the maximum design pressure is 8,100 psig. The calculations below are for:

- Riser (All Locations)
- Flowline (All Locations)

For the Riser and Flowline segments, the minimum water depth is utilized to determine the external pressure, yielding the most conservative result.

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#### ANADARKO PETROLEUM CORPORATION

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#### DESOTO CANYON AREA BLOCK 621 TO MISSISSIPPI CANYON AREA BLOCK 920 PROPOSED PLATFORM

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##### Riser (All Locations)

$$t = \frac{(P_i - P_e) D}{2(F)(E)(T)(S)} \Rightarrow 30 \text{ CFR 250, ANSI B31.8 (rearranged)}$$

S = Specified Minimum Yield Strength (SMYS) = 65,000 psi

D = Pipe Outside Diameter = 8.625 in.

F = Construction Design Factor = 0.60 (Riser Pipe per 30 CFR 250)

E = Longitudinal Joint Factor = 1.0 (Seamless Pipe)

T = Temperature Derate Factor = 1.0 (Temp.  $\leq 250$  °F)

t = Pipe Wall Thickness = 0.950 in

P<sub>i</sub> = Internal Design Pressure = 8100 (psig)

P<sub>e</sub> = External Pressure = P<sub>seawater</sub>

$$= \left( (0 \text{ ft}) \left( \frac{64 \text{ lb}}{\text{ft}^3} \right) \left( \frac{\text{ft}^2}{144 \text{ in}^2} \right) \right) = 0 \text{ psig (calculated at minimum water depth)}$$

$$t_{\text{nom}} = \frac{(8,100 \text{ lb/in}^2 - 0 \text{ lb/in}^2)(8.625 \text{ in})}{2(0.60)(1.0)(1.0)(65,000 \text{ lb/in}^2)} = 0.896 \text{ in}$$

= 0.950 in Selected  $\Rightarrow$  OK

##### Pipeline (All Locations)

$$t = \frac{(P_i - P_e) D}{2(F)(E)(T)(S)} \Rightarrow 30 \text{ CFR 250, ANSI B31.8 (rearranged)}$$

S = Specified Minimum Yield Strength (SMYS) = 65,000 psi

D = Pipe Outside Diameter = 8.625 in.

F = Construction Design Factor = 0.72 (Pipeline per 30 CFR 250)

E = Longitudinal Joint Factor = 1.0 (Seamless Pipe)

T = Temperature Derate Factor = 1.0 (Temp.  $\leq 250$  °F)

t = Pipe Wall Thickness = 0.675 in

P<sub>i</sub> = Internal Design Pressure = 8100 (psig)

P<sub>e</sub> = External Pressure = P<sub>seawater</sub> (Calculated at minimum water depth)

$$= \left( (7913 \text{ ft}) \left( \frac{64 \text{ lb}}{\text{ft}^3} \right) \left( \frac{\text{ft}^2}{144 \text{ in}^2} \right) \right) = 3,517 \text{ psig}$$

$$t_{\text{nom}} = \frac{(8,100 \text{ lb/in}^2 - 3,517 \text{ lb/in}^2)(8.625 \text{ in})}{2(0.72)(1.0)(1.0)(65,000 \text{ lb/in}^2)} = 0.422 \text{ in}$$

= 0.675 in Selected  $\Rightarrow$  OK

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13. Pipe Design Pressure (P) of Flanges, Fittings and Valves in Pipeline and Riser:

- Valves: API Rating: 10,000 psig
- Flanges, etc: API Rating: 10,000 psig

14. Pipeline Hoop Stress During Hydrotest:

In order to verify that 95% of the material Specified Minimum Yield Strength is not exceeded during hydrotesting, the calculations below were performed for each location along the riser and flowline system. The effective hydrotest pressure determined in section 12 above were utilized.

$$\% \text{ SMYS at Hydrotest} = \frac{P_{\text{eff hyd}} D}{2tS} \times 100\%$$

D = Outside Pipe Diameter = 8.625 (in)

t = Pipe Wall Thickness = varies (in) (Riser = 0.950 in, Pipeline = 0.675 in)

S = Specified Minimum Yield Strength (SMYS) = 65,000 psi

$P_{\text{eff hyd}}$  = Effective Hydrostatic Test Pressure = varies (lb/in<sup>2</sup>) (refer to section 12 above)

$$\text{Host Platform} + 100 \text{ MSL} \Rightarrow \% \text{ SMYS at Hydrotest} = \left( \frac{9,060 \text{ lb}}{\text{in}^2} \right) \left( \frac{8.625 \text{ in}}{1} \right) \left( \frac{1}{2} \right) \left( \frac{1}{0.950 \text{ in}} \right) \left( \frac{\text{in}^2}{65,000 \text{ lb}} \right) \times 100\% = 63.3\%$$

$$\text{Riser} - 0 \text{ fsw} \Rightarrow \% \text{ SMYS at Hydrotest} = \left( \frac{9,104 \text{ lb}}{\text{in}^2} \right) \left( \frac{8.625 \text{ in}}{1} \right) \left( \frac{1}{2} \right) \left( \frac{1}{0.950 \text{ in}} \right) \left( \frac{\text{in}^2}{65,000 \text{ lb}} \right) \times 100\% = 63.6\%$$

$$\text{Riser} - 7913 \text{ fsw} \Rightarrow \% \text{ SMYS at Hydrotest} = \left( \frac{9,104 \text{ lb}}{\text{in}^2} \right) \left( \frac{8.625 \text{ in}}{1} \right) \left( \frac{1}{2} \right) \left( \frac{1}{0.675 \text{ in}} \right) \left( \frac{\text{in}^2}{65,000 \text{ lb}} \right) \times 100\% = 89.5\%$$

$$\text{Flowline} - 7913 \text{ fsw} \Rightarrow \% \text{ SMYS at Hydrotest} = \left( \frac{9,104 \text{ lb}}{\text{in}^2} \right) \left( \frac{8.625 \text{ in}}{1} \right) \left( \frac{1}{2} \right) \left( \frac{1}{0.675 \text{ in}} \right) \left( \frac{\text{in}^2}{65,000 \text{ lb}} \right) \times 100\% = 89.5\%$$

$$\text{Flowline} - 8,080 \text{ fsw} \Rightarrow \% \text{ SMYS at Hydrotest} = \left( \frac{9,104 \text{ lb}}{\text{in}^2} \right) \left( \frac{8.625 \text{ in}}{1} \right) \left( \frac{1}{2} \right) \left( \frac{1}{0.675 \text{ in}} \right) \left( \frac{\text{in}^2}{65,000 \text{ lb}} \right) \times 100\% = 89.5\%$$

15. Maximum Allowable Operating Pressure (MAOP):

For this design, the Maximum Allowable Operating Pressure of the flowline and riser will be based on the lesser of the following at each location in the flowline system:

- 80% of Hydrostatic test Pressure (Determined Below)
- Design Pressure (Determined in Section 12)

#### MAOP Based on 80% of Hydrostatic Testing

The Maximum Allowable Operating Pressure for this flowline system is based upon the design pressure of 8,100 psig. This pressure, however, would not be experienced for the entire length of the flowline due to the internal and external hydrostatic pressures. The presence of Hydrotest Water, and/or Product Gas can reduce the pressure at the top of the riser significantly. Based upon the fluid

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**ATTACHMENT B**  
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**ANADARKO PETROLEUM CORPORATION**  
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**DESOTO CANYON AREA BLOCK 621 TO MISSISSIPPI CANYON AREA BLOCK 920 PROPOSED PLATFORM**

hydrostatic pressure calculations, the situation with the entire pipeline filled with Methane gas is taken as the "worst" case. Although it is extremely unlikely that this condition would ever occur, it would not be possible to have any fluid combination in the flowline that could produce a higher shut-in pressure at the top of the riser. If one assumes that this is in fact the "worst" case, the following calculations show the Maximum Allowable Operating Pressure (MAOP) based upon the "effective" hydrotest pressure at designated location along the flowline system.

$$\text{MAOP} = 80\% \text{ Effective Hydrotest Pressure} + \text{External Pressure}$$

$$= (P_{\text{eff hyd}} \times 80\%) + P_e$$

$$P_{\text{eff hyd}} = P_{\text{hyd}} - H_e \quad (\text{See Section 11 Above})$$

$$P_e = \text{External Pressure} = (\Delta E_e) \left( \frac{64 \text{ lb}}{\text{ft}^3} \right) \left( \frac{\text{ft}^2}{144 \text{ in}^2} \right)$$

$$\Delta E_e = \text{Depth of sea water outside pipeline}$$

$$\text{Host Platform} + 100 \text{ MSL} \Rightarrow \text{MAOP} = \left[ (9,060 \text{ psig} \times 80\%) + \left[ (0 \text{ ft}) \left( \frac{64 \text{ lb}}{\text{ft}^3} \right) \left( \frac{\text{ft}^2}{144 \text{ in}^2} \right) \right] \right] = 7,248 \text{ psig}$$

$$\text{Riser } -0 \text{ fsw} \Rightarrow \text{MAOP} = \left[ (9,104 \text{ psig} \times 80\%) + \left[ (0 \text{ ft}) \left( \frac{64 \text{ lb}}{\text{ft}^3} \right) \left( \frac{\text{ft}^2}{144 \text{ in}^2} \right) \right] \right] = 7,283 \text{ psig}$$

$$\text{Riser } -7913 \text{ fsw} \Rightarrow \text{MAOP} = \left[ (9,104 \text{ psig} \times 80\%) + \left[ (7913 \text{ ft}) \left( \frac{64 \text{ lb}}{\text{ft}^3} \right) \left( \frac{\text{ft}^2}{144 \text{ in}^2} \right) \right] \right] = 10,800 \text{ psig}$$

$$\text{Flowline } -7913 \text{ fsw} \Rightarrow \text{MAOP} = \left[ (9,104 \text{ psig} \times 80\%) + \left[ (7913 \text{ ft}) \left( \frac{64 \text{ lb}}{\text{ft}^3} \right) \left( \frac{\text{ft}^2}{144 \text{ in}^2} \right) \right] \right] = 10,800 \text{ psig}$$

$$\text{Flowline } -8,080 \text{ fsw} \Rightarrow \text{MAOP} = \left[ (9,104 \text{ psig} \times 80\%) + \left[ (8,080 \text{ ft}) \left( \frac{64 \text{ lb}}{\text{ft}^3} \right) \left( \frac{\text{ft}^2}{144 \text{ in}^2} \right) \right] \right] = 10,874 \text{ psig}$$

**MAOP Evaluation:**

Location Along Pipeline	Flowline System Shut-in Pressure (Methane Filled) (psig)	80% Hydrostatic Test Pressure ** (psig)	Design Pressure (psig)	Maximum Allowable Operating Pressure (MAOP)*** (psig)
Riser Pipe @ +100' MSL	7,248	7,248	8,100	7,248
Riser Pipe @ -0' MSL	7,258	7,283	8,100	7,283
Riser Pipe @ -7913' MSL	8,083	10,800	8,100	8,100
Flowline @ -7913' MSL	8,083	10,800	8,100	8,100
Flowline @ -8080 fsw	8,100	10,874	8,100	8,100

\* The operating pressure is the pressure seen at the point in the riser/flowline based upon a Methane gas filled flowline system

\*\* The 80% hydrotest pressure is the pressure determined by 80% of the effective hydrostatic test pressure plus the external seawater pressure.

\*\*\* The Maximum Allowable Operating Pressure is determined by the minimum of:

- a. 80% Hydrostatic Test Pressure
- b. Design Pressure

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**DESOTO CANYON AREA BLOCK 621 TO MISSISSIPPI CANYON AREA BLOCK 920 PROPOSED PLATFORM**

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16. Riser Protection: The Steel Catenary Risers(SCR's) will be suspended from the floating production platform. From the top of the SCR, piping for the risers will be located within the confines of the production platform structure and thus protected by the host structure. Therefore, "Riser Guards" will not be required.
17. On Bottom Stability: Stability against effects of water currents and storms has been evaluated. The specific gravity of the operational oil pipeline is more than adequate to ensure on-bottom pipeline stability in these water depths.
18. Pipeline Spanning: A pipeline span analysis has been conducted along the entire route. Although the analysis indicates the possible existence of pipeline spans after installation, these spans are within allowable limits for installation, operation and hydrostatic testing. The analysis accounts for static and dynamic stresses as well as vortex induced vibrations. All stresses for installation, operation and hydrostatic testing are within allowable limits. The potential spans lengths identified are short enough such that Vortex Induced Vibrations (VIV) are not expected. Should spans which exceed allowable limits be found after installation, these will be rectified with placement of intermediate supports, or VIV suppression.
19. Collapse Due to External Pressure: The riser and flowline pipe has been designed to resist collapse due to external pressure. Evaluation has been performed in accordance with API Recommended Practice 1111 (Third Edition). The evaluations for both the riser pipe and flowline pipe were conducted based on the maximum associated water depth. Results are provided below:

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**DESOTO CANYON AREA BLOCK 621 TO MISSISSIPPI CANYON AREA BLOCK 920 PROPOSED PLATFORM**

Riser Pipe:

$P_e$  = External Pressure (Sea Water Hydrostatic Pressure)

$$P_e = (D_{H_2O})(\rho\rho_{H_2O})$$

$D_{H_2O}$  = Water Depth (ft)

$\rho\rho_{H_2O}$  = Sea Water Density ( $64 \frac{\text{lb}}{\text{ft}^3}$ )

$$P_e = \left[ (7,913 \text{ ft}) \left( \frac{64 \text{ lb}}{\text{ft}^3} \right) \left( \frac{\text{ft}^2}{144 \text{ in}^2} \right) \right] = 3,517 \frac{\text{lb}}{\text{in}^2}$$

$$P_e = 3,517 \text{ psig}$$

$$P_s = \frac{(P_y)(P_{ins})}{\sqrt{(P_y^2 + P_{ins}^2)}} = \text{Collapse Pressure of Pipe}$$

$$P_y = \text{Plastic Yield Pressure} = \frac{2St}{D}$$

$S$  = Pipe Yield Strength ( $\frac{\text{lb}}{\text{in}^2}$ ) =  $65,000 \frac{\text{lb}}{\text{in}^2}$

$t$  = Pipe Wall Thickness (in) = 0.950 in

$D$  = Pipe Outside Diameter (in) = 8.625 in

$$P_y = \left( \frac{2}{1} \right) \left( \frac{65,000 \text{ lb}}{\text{in}^2} \right) \left( \frac{0.950 \text{ in}}{1} \right) \left( \frac{1}{8.625 \text{ in}} \right) = 14,319 \frac{\text{lb}}{\text{in}^2}$$

$$P_y = 14,319 \text{ psi}$$

$$P_{ins} = \text{Elastic Instability Pressure} = (2.2)(E) \left( \frac{t}{D} \right)^3$$

$E$  = Elastic Modulus =  $29,000,000 \frac{\text{lb}}{\text{in}^2}$  (for steel)

$$P_{ins} = (2.2) \left( \frac{29,000,000 \text{ lb}}{\text{in}^2} \right) \left( \frac{0.950 \text{ in}}{8.625 \text{ in}} \right)^3 = 85,254 \frac{\text{lb}}{\text{in}^2}$$

$$P_{ins} = 85,254 \text{ psi}$$

$$P_s = \frac{(14,319 \frac{\text{lb}}{\text{in}^2})(85,254 \frac{\text{lb}}{\text{in}^2})}{\sqrt{((14,319 \frac{\text{lb}}{\text{in}^2})^2 + (85,254 \frac{\text{lb}}{\text{in}^2})^2)}} = 14,121 \frac{\text{lb}}{\text{in}^2}$$

$$P_s = 14,121 \text{ psi}$$

$$\text{Safety Factor Against Casing Collapse} = \frac{P_s}{P_e} = \frac{14,121 \text{ psi}}{3,517 \text{ psi}} = 4.20 \Rightarrow \text{OK: Safety Factors} > 1.5 \text{ are adequate}$$

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**ANADARKO PETROLEUM CORPORATION**  
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**DESOTO CANYON AREA BLOCK 621 TO MISSISSIPPI CANYON AREA BLOCK 920 PROPOSED PLATFORM**

Flowline Pipe:

$P_e$  = External Pressure (Sea Water Hydrostatic Pressure)

$$P_e = (D_{H_2O})(\rho_{H_2O})$$

$D_{H_2O}$  = Water Depth (ft)

$\rho_{H_2O}$  = Sea Water Density ( $64 \text{ lb/ft}^3$ )

$$P_e = \left[ (8,080 \text{ ft}) \left( \frac{64 \text{ lb}}{\text{ft}^3} \right) \left( \frac{\text{ft}^2}{144 \text{ in}^2} \right) \right] = 3,591 \text{ lb/in}^2$$

$$P_e = 3,591 \text{ psi}$$

$$P_s = \frac{(P_y)(P_{ins})}{\sqrt{(P_y^2 + P_{ins}^2)}} = \text{Collapse Pressure of Pipe}$$

$$P_y = \text{Plastic Yield Pressure} = \frac{2St}{D}$$

$$S = \text{Pipe Yield Strength (lb/in}^2\text{)} = 65,000 \text{ lb/in}^2$$

$$t = \text{Pipe Wall Thickness (in)} = 0.675 \text{ in}$$

$$D = \text{Pipe Outside Diameter (in)} = 8.625 \text{ in}$$

$$P_y = \left( \frac{2}{1} \right) \left( \frac{65,000 \text{ lb}}{\text{in}^2} \right) \left( \frac{0.675 \text{ in}}{1} \right) \left( \frac{1}{8.625 \text{ in}} \right) = 10,174 \text{ lb/in}^2$$

$$P_y = 10,174 \text{ psi}$$

$$P_{ins} = \text{Elastic Instability Pressure} = (2.2)(E) \left( \frac{t}{D} \right)^3$$

$$E = \text{Elastic Modulus} = 29,000,000 \text{ lb/in}^2 \text{ (for steel)}$$

$$P_{ins} = (2.2) \left( \frac{29,000,000 \text{ lb}}{\text{in}^2} \right) \left( \frac{0.675 \text{ in}}{8.625 \text{ in}} \right)^3 = 30,581 \text{ lb/in}^2$$

$$P_{ins} = 30,581 \text{ psi}$$

$$P_s = \frac{(10,174 \text{ lb/in}^2)(30,581 \text{ lb/in}^2)}{\sqrt{((10,174 \text{ lb/in}^2)^2 + (30,581 \text{ lb/in}^2)^2)}} = 9,658 \text{ lb/in}^2$$

$$P_s = 9,937 \text{ psi}$$

$$\text{Safety Factor Against Casing Collapse} = \frac{P_s}{P_e} = \frac{9,658 \text{ psi}}{3,591 \text{ psi}} = 2.69 \Rightarrow \text{OK: Safety Factors} > 1.5 \text{ are adequate}$$



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**MMS PERMIT APPLICATION**  
**ATTACHMENT B**  
**PIPELINE DESIGN CRITERIA**  
**ANADARKO PETROLEUM CORPORATION**  
**8-INCH BULK GAS PIPELINE**

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**DESOTO CANYON AREA BLOCK 621 TO MISSISSIPPI CANYON AREA BLOCK 920 PROPOSED PLATFORM**

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20. Buckle Arrestors: The riser pipe has been designed to resist a propagating buckle if initiated. The flowline pipe has not been designed to resist a propagating buckle if initiated. The flowline will be installed with buckle arrestors designed to arrest propagating buckles and spaced at 1000-foot spacings.
21. Pipeline Crossings: There are no crossings of existing pipelines associated with this installation.
22. Worst Case Discharge: As this is a "dry" gas flowline, oil spill volumes due to a leak in the flowline system would be minimal. However, the worst case oil spill calculations take into account potential retrograde condensate trapped in the pipeline. The potential "worst case" calculation is summarized below:

System leak detection plus shutdown response time:	1.5 minutes
Predicted oil(condensate) flow rate:	0.291 bbl/min
Flowing volume loss:	1 bbl
Longest untrapped volume:	4 bbl
Worst Case Discharge:	5 bbl

23. Steel Catenary Riser

The riser for this flowline, which connects to a floating semi-submersible production platform will be a Steel Catenary Riser (SCR) connected to the platform hull. The SCR riser will be designed for a minimum life of 20-years with a minimum fatigue life of 200-years, providing a factor of safety against fatigue of 10. In order to reduce the Vortex Induced Vibration contribution to the fatigue damage, Helical Strakes or Fairings will be installed on the upper portions of the riser.

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**MMS PERMIT APPLICATION****ATTACHMENT B****PIPELINE DESIGN CRITERIA****ANADARKO PETROLEUM CORPORATION****8-INCH BULK GAS PIPELINE****DESOTO CANYON AREA BLOCK 621 TO MISSISSIPPI CANYON AREA BLOCK 920 PROPOSED PLATFORM**

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**C. INSTALLATION REQUIREMENTS**

The pipeline will be installed in a water depths to 8,080 feet. The pipeline is located in water depths greater than 200 feet, therefore pipeline burial is not required.

The 8-inch line will be electrically isolated from the platforms.

**D. CONSTRUCTION INFORMATION**

1. Proposed Construction Commencement date is November 1, 2005.
2. Shore Construction Base to be located in Fourchon, Louisiana.
3. The pipeline and spools will be installed by a dynamically positioned S-lay lay vessel. The SCR riser will be installed by a dynamically positioned Derrick Semi Submersible vessel.
4. The pipeline will not be buried.
5. Time Required for Construction: Pipeline :3 weeks (Approx. November/December 2005), SCR Hangoff: 1 week (Approx. August 2006)

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
MINERALS MANAGEMENT SERVICE

NONDISCRIMINATION IN EMPLOYMENT

As a condition precedent to the approval of the granting of the subject pipeline right-of-way, the grantee, Anadarko Petroleum Corporation hereby agrees and consents to the following stipulation which is to be incorporated into the application for said right-of-way.

During the performance of this grant, the grantee agrees as follows:

During the performance under this grant, the grantee shall fully comply with paragraphs (1) through (7) of section 202 of Executive Order 11246, as amended (reprinted in 41 CFR 60-1.4(a)), which are for the purpose of preventing discrimination against persons on the basis of race, color, religion, sex or national origin. Paragraphs (1) through (7) of section 202 of Executive Order 11246, as amended, are incorporated in this grant by reference.

Anadarko Petroleum Corporation - Grantee



Richard E. Stites  
Agent & Attorney-in-fact

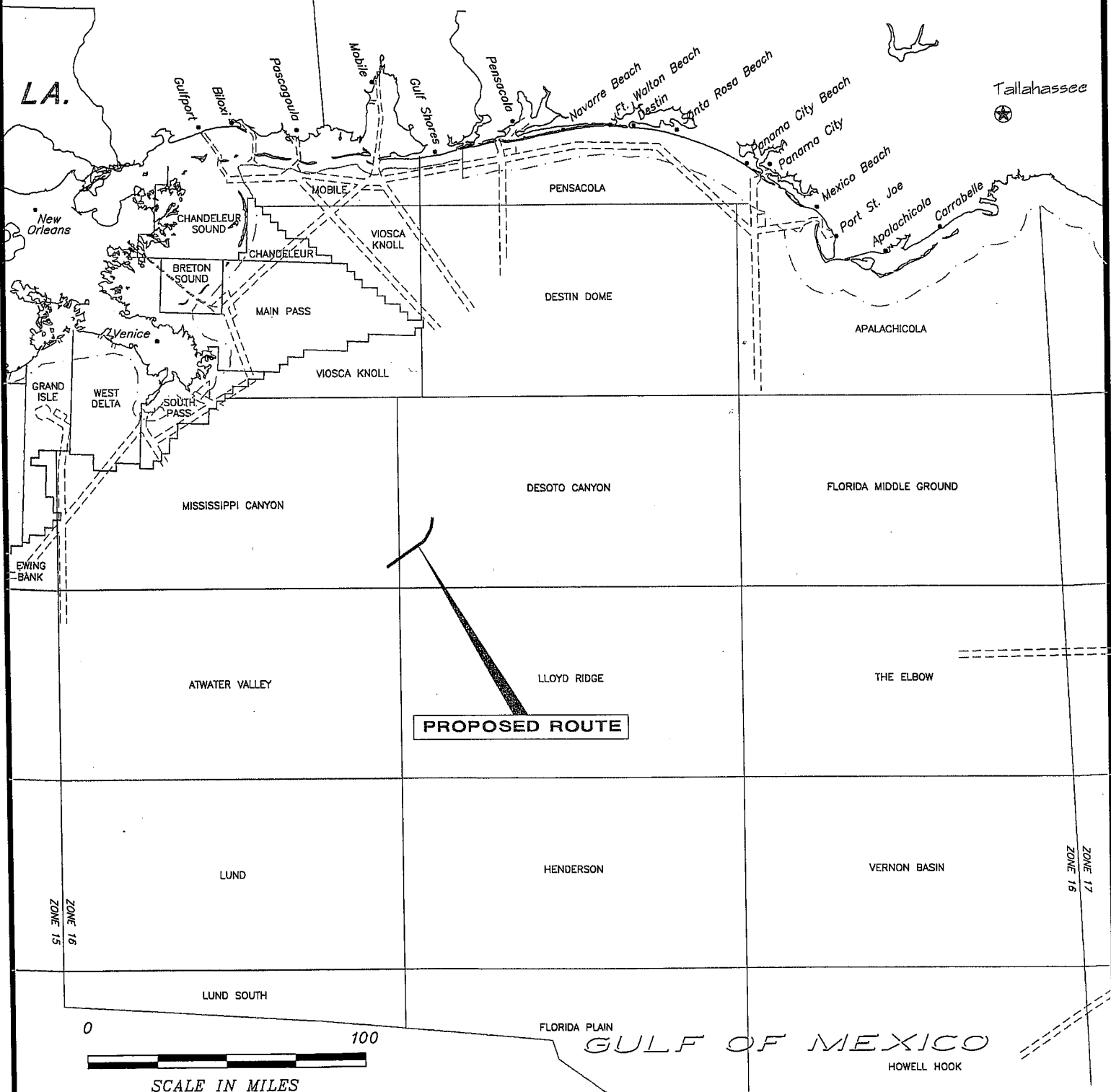
4/4/05  
Date

## VICINITY MAP

MISSISSIPPI

ALABAMA

FLORIDA



DATE: 03/24/2005 TIME: 13:24 FILENAME: J:\7458-7589\SPIDERMAN\PERMITS\PRMCVR7458.DWG

**Anadarko**  
 Petroleum Corporation

PROP. SPIDERMAN 8" EAST BULK GAS F/L  
 Block 621 Well #1 PLET, Desoto Canyon Area  
 to  
 Block 920 Independence Hub Platform  
 Mississippi Canyon Area

PREPARED  
BY:
**C&C Technologies**  
 SURVEY SERVICES  
 730 E. KAUISTE SALOON ROAD, LAFAYETTE, LA (337) 261-6660

JOB No: 7458-7589

FILENAME: PRMCVR7458.DWG

REVISED:

DATE: March 24, 2005

SHEET 1 of 13

**DC620**  
OCS-G-23528  
ANADARKO

**DC621**  
OCS-G-23529  
ANADARKO

00+00.00' ANADARKO  
OCS-G-23529 WELL #1 PLET  
X= 1,410,423.17'  
Y= 10,287,069.83'  
Lat= 28°20'43.619"N  
Lon= 87°42'54.906"W

**PROPOSED SPIDERMAN 8" EAST BULK GAS FLOWLINE**

TOTAL LENGTH = 134,514.19' = 25.48 statute miles

PROPOSED SPIDERMAN UMBILICAL  
PROPOSED SPIDERMAN 10" WEST BULK GAS FLOWLINE

508°55'02"W  
15,088.76'

42+78.27'  
BLOCKLINE CROSSING  
X= 1,409,760.00'  
Y= 10,282,843.27'  
Lat= 28°20'01.718"N  
Lon= 87°43'02.049"W

MATCH LINE

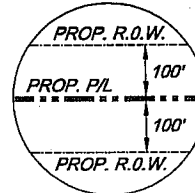
### PLAN



SCALE IN US SURVEY FEET

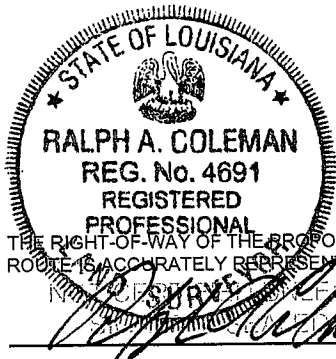
NADCON version 2.1 utilized for  
WGS84-NAD27 conversions.

### RIGHT-OF-WAY DETAIL

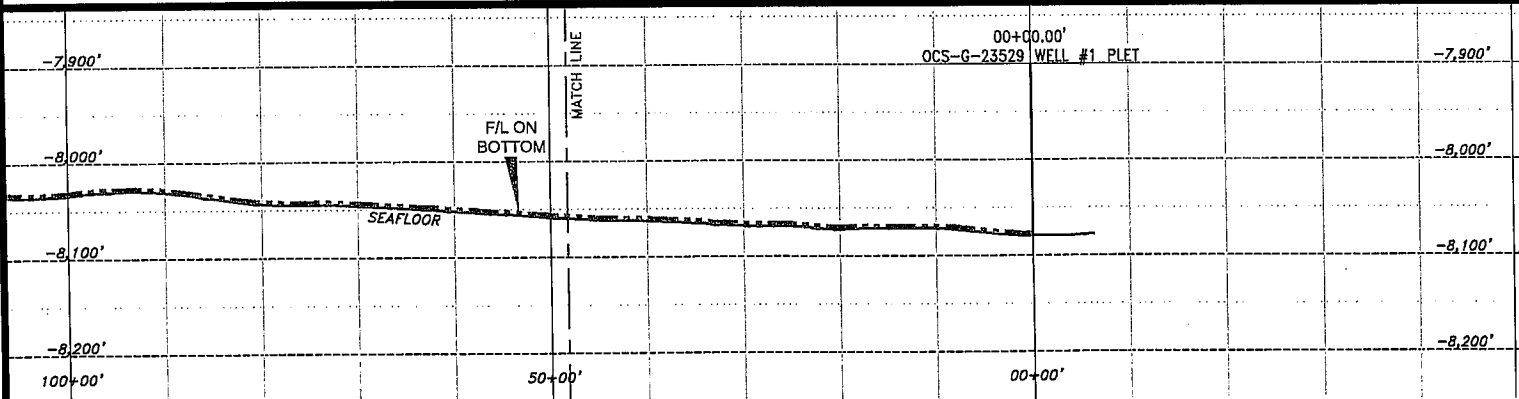


FOR PERMITTING ONLY. LENGTH OF RISERS NOT  
INCLUDED IN TOTAL LENGTH.

GEODETIC DATUM: NAD27  
ELLIPSOID: CLARKE 1866  
GRID UNITS: U.S. SURVEY FEET  
PROJECTION: UNIVERSAL TRANSVERSE MERCATOR  
ZONE: 16N  
CENTRAL MERIDIAN: 87°00' W  
FALSE EASTING: 1,640,416.67 ft. at C.M.  
FALSE NORTHING: 0.00 ft. at 00° 00' N

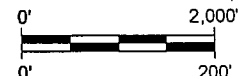


RALPH A. COLEMAN  
PROFESSIONAL LAND SURVEYOR  
LOUISIANA REGISTRATION No. 4691



### PROFILE

HORIZONTAL SCALE:  
VERTICAL SCALE:



VERTICAL EXAGGERATION = 10

DATE: 03/24/2005 TIME: 11:35 FILENAME: J:\7458-7589\SPIDERMAN\PERMITS\PRM7458\_SM-F-EAST.DWG

**Anadarko**  
Petroleum Corporation

**PROP. SPIDERMAN 8" EAST BULK GAS F/L**  
Block 621 Well #1 PLET, Desoto Canyon Area  
to  
Block 920 Independence Hub Platform  
Mississippi Canyon Area

PREPARED  
BY:



**C&C Technologies**  
SURVEY SERVICES  
730 E. KALISTE SALOON ROAD, LAFAYETTE, LA (337) 261-0660

JOB No: 7458-7589

FILENAME: PRM7458\_SM-F-EAST.DWG

REVISED:

DATE: 03/24/2005

**SHEET 2 of 13**

**DC620**

OCS-G-23528

ANADARKO

**DC621**

OCS-G-23529

ANADARKO

**DC664**

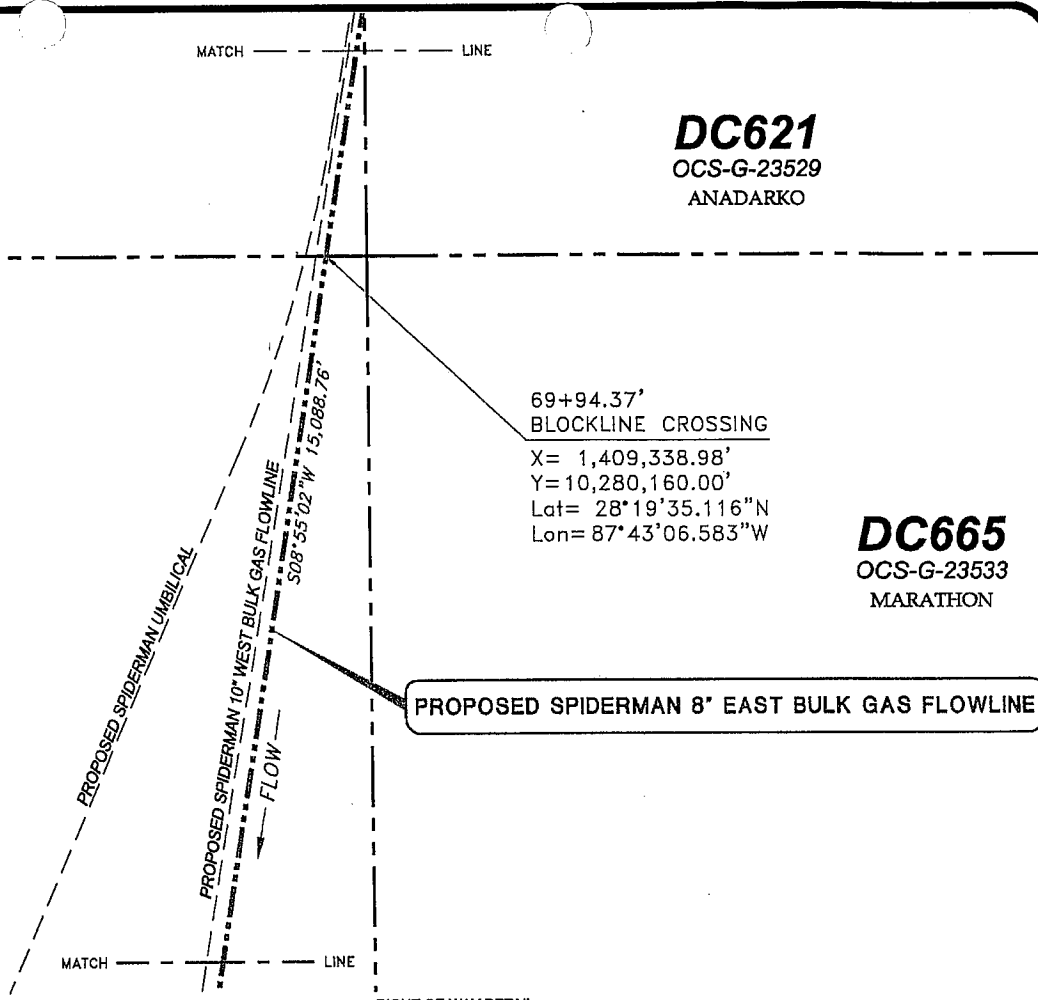
OCS-G-23532

MARATHON

**DC665**

OCS-G-23533

MARATHON



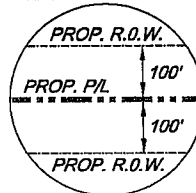
**PLAN**



SCALE IN US SURVEY FEET

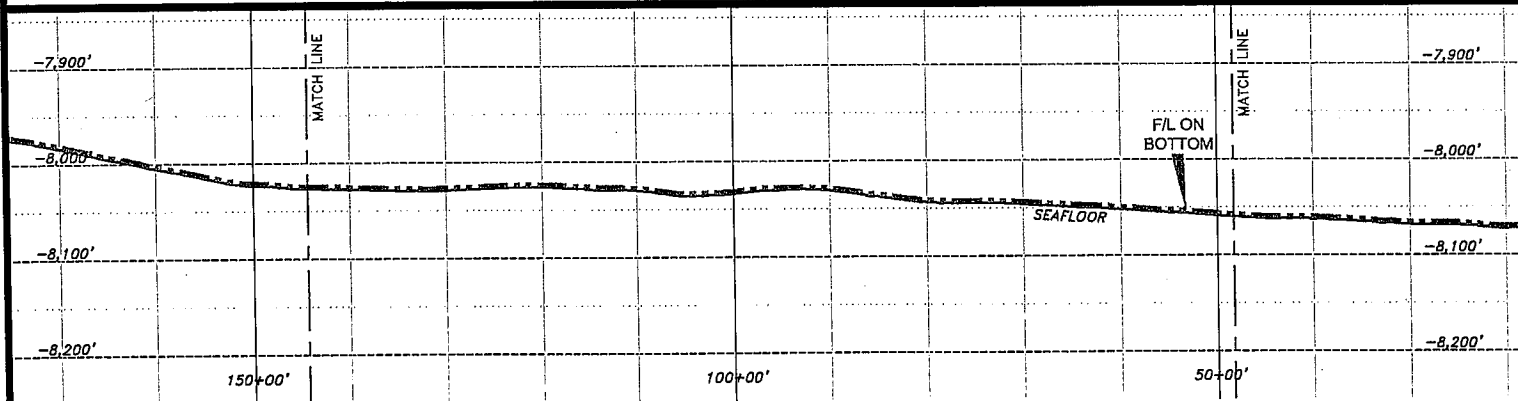
NADCON version 2.1 utilized for  
WGS84-NAD27 conversions.

**RIGHT-OF-WAY DETAIL**



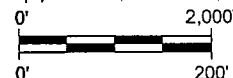
FOR PERMITTING ONLY. LENGTH OF RISERS NOT  
INCLUDED IN TOTAL LENGTH.

GEODETIC DATUM: NAD27  
ELLIPSOID: CLARKE 1866  
GRID UNITS: U.S. SURVEY FEET  
PROJECTION: UNIVERSAL TRANSVERSE MERCATOR  
ZONE: 16N  
CENTRAL MERIDIAN: 87° 00' W  
FALSE EASTING: 1,640,416.67 ft. at C.M.  
FALSE NORTHING: 0.00 ft. at 00° 00' N



**PROFILE**

HORIZONTAL SCALE:  
VERTICAL SCALE:



VERTICAL EXAGGERATION = 10

DATE: 03/24/2005 TIME: 11:35 FILENAME: J:\7458-7589\SPIDERMAN\PERMITS\PRM7458\_SM-F-EAST.DWG

**Anadarko**  
Petroleum Corporation

**PROP. SPIDERMAN 8" EAST BULK GAS F/L**  
Block 621 Well #1 PLET, Desoto Canyon Area  
to  
Block 920 Independence Hub Platform  
Mississippi Canyon Area

PREPARED  
BY:



**C&C Technologies**  
SURVEY SERVICES

730 E. KAUSTE SALOON ROAD, LAFAYETTE, LA (337) 281-0560

JOB No: 7458-7589

FILENAME: PRM7458\_SM-F-EAST.DWG

REVISED:

DATE: 03/24/2005

**SHEET 3 of 13**

**PROPOSED SPIDERMAN 8" EAST F/L**

POINT	STATION	X COORDINATE	Y COORDINATE	LATITUDE	LONGITUDE
PC1	150+88.78'	1,408,084.28'	10,272,183.45'	28°18'15.839"N	87°43'20.091"W
PT1	161+94.39'	1,407,873.34'	10,271,078.37'	28°18'05.079"N	87°43'22.379"W
PC2	201+53.65'	1,406,976.98'	10,267,221.91'	28°17'28.829"N	87°43'32.151"W
PT2	245+02.00'	1,405,358.83'	10,263,117.85'	28°18'48.083"N	87°43'50.001"W

**DC664**  
OCS-G-23532  
MARATHON

**CURVE 1 DATA**

PI 1
X= 1,407,998.55'
Y= 10,271,617.07'
R= 15,200.00'
T= 553.06'
Δ= 04°10'04"
L= 1,105.64'

**CURVE 2 DATA**

PI 2
X= 1,406,472.03'
Y= 10,265,049.43'
R= 15,000.00'
T= 2,230.40'
Δ= 16°54'54"
L= 4,428.35'

**DC665**  
OCS-G-23533  
MARATHON

**PROPOSED SPIDERMAN 8" EAST BULK GAS FLOWLINE**

232+27.32'  
BLOCKLINE CROSSING

X= 1,405,980.31'  
Y= 10,264,320.00'  
Lat= 28°16'58.027"N  
Lon= 87°43'43.107"W

**DC708**  
(Unleased)

**DC709**  
OCS-G-23535  
SHELL

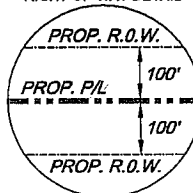
# **PLAN**



SCALE IN US SURVEY FEET

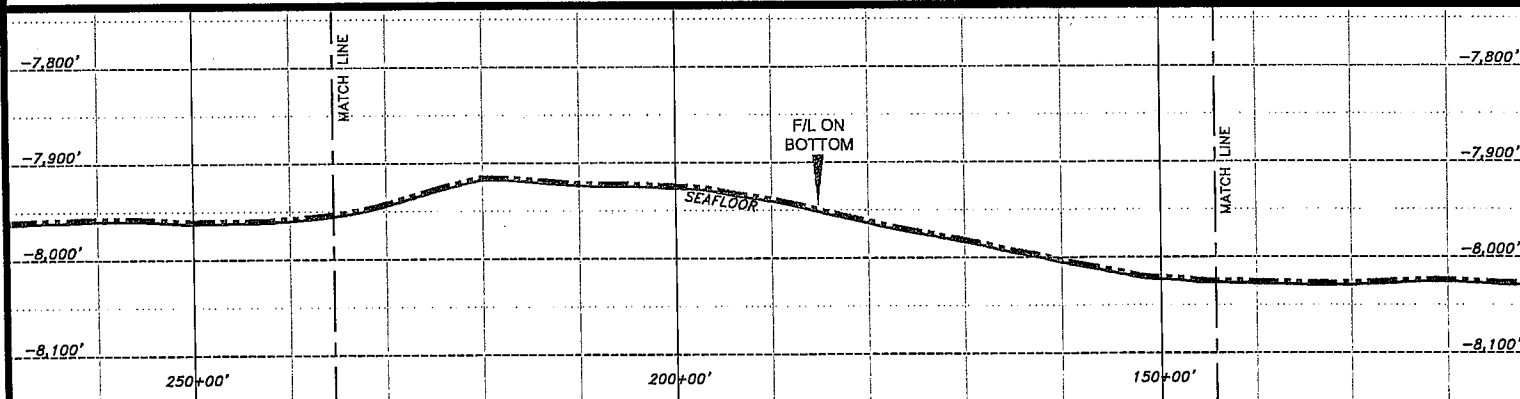
NADCON version 2.1 utilized for  
WGS84-NAD27 conversions.

## **RIGHT-OF-WAY DETAIL**



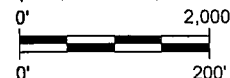
FOR PERMITTING ONLY. LENGTH OF RISERS NOT  
INCLUDED IN TOTAL LENGTH.

GEODETIC DATUM: NAD27  
ELLIPSOID: CLARKE 1866  
GRID UNITS: U.S. SURVEY FEET  
PROJECTION: UNIVERSAL TRANSVERSE MERCATOR  
ZONE: 16N  
CENTRAL MERIDIAN: 87° 00' W  
FALSE EASTING: 1,640,416.67 ft. at C.M.  
FALSE NORTHING: 0.00 ft. at 00° 00' N



## **PROFILE**

HORIZONTAL SCALE:  
VERTICAL SCALE:



DATE: 03/24/2005 TIME: 11:35 FILENAME: J:\7458-7589\SPIDERMAN\PERMITS\PRM7458\_SM-F-EAST.DWG

VERTICAL EXAGGERATION = 10

**Anadarko**  
Petroleum Corporation

**PROP. SPIDERMAN 8" EAST BULK GAS F/L**  
Block 621 Well #1 PLET, Desoto Canyon Area  
to  
Block 920 Independence Hub Platform  
Mississippi Canyon Area

PREPARED  
BY:



**C&C Technologies**  
SURVEY SERVICES  
230 E. KAUSTE SALOON ROAD, LAFAYETTE, LA (337) 261-0660

JOB No: 7458-7589

FILENAME: PRM7458\_SM-F-EAST.DWG

REVISED:

DATE: 03/24/2005

**SHEET 4 of 13**



PROPOSED SPIDERMAN UMBILICAL

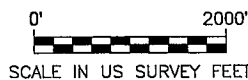
PROPOSED SPIDERMAN 8" EAST F/L					
POINT	STATION	X COORDINATE	Y COORDINATE	LATITUDE	LONGITUDE
PT2	245+82.00'	1,405,358.83'	10,283,117.85'	28°18'48.083"N	87°43'50.001"W

CURVE 2 DATA	
PI 2	
X=	1,406,472.03'
Y=	10,265,049.43'
R=	15,000.00'
T=	2,230.40'
Δ=	16°54'54"
L=	4,428.35'

**DC708**  
(Unleased)

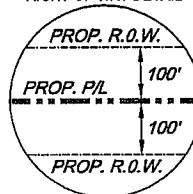
MATCH ——— LINE

### PLAN



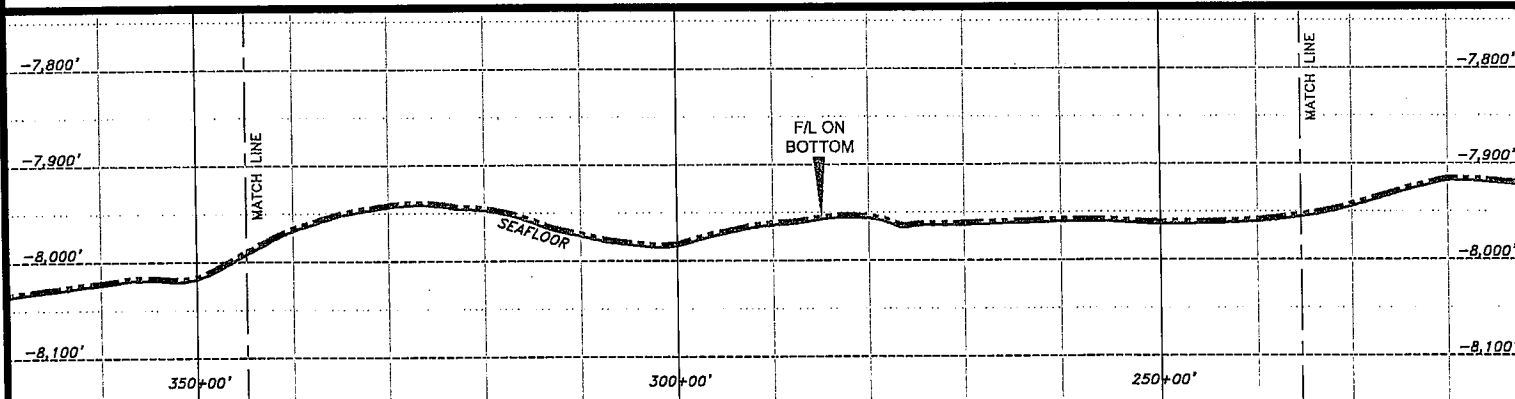
SCALE IN US SURVEY FEET  
NADCON version 2.1 utilized for  
WGS84-NAD27 conversions.

#### RIGHT-OF-WAY DETAIL

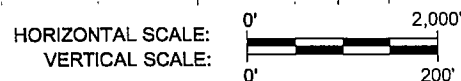


FOR PERMITTING ONLY. LENGTH OF RISERS NOT  
INCLUDED IN TOTAL LENGTH.

GEODETTIC DATUM: NAD27  
ELLIPSOID: CLARKE 1866  
GRID UNITS: U.S. SURVEY FEET  
PROJECTION: UNIVERSAL TRANSVERSE MERCATOR  
ZONE: 16N  
CENTRAL MERIDIAN: 87° 00' W  
FALSE EASTING: 1,640,416.67 ft. at C.M.  
FALSE NORTHING: 0.00 ft. at 00° 00' N



### PROFILE



DATE: 03/24/2005 TIME: 11:35 FILENAME: J:\7458-7589\SPIDERMAN\PERMITS\PRM7458\_SM-F-EAST.DWG

VERTICAL EXAGGERATION = 10

**Anadarko**  
Petroleum Corporation

**PROP. SPIDERMAN 8" EAST BULK GAS F/L**  
Block 621 Well #1 PLET, Desoto Canyon Area  
to  
Block 920 Independence Hub Platform  
Mississippi Canyon Area

PREPARED  
BY:



**C&C Technologies**  
SURVEY SERVICES  
730 E. KAISTE SALDOV ROAD, LAFAYETTE, LA (337) 281-0560

JOB No: 7458-7589

FILENAME: PRM7458\_SM-F-EAST.DWG

REVISED:

DATE: 03/24/2005

**SHEET 5 of 13**





**DC707**  
OCS-G-25861  
DOMINION

385+79.62'  
ENTER MWA (EWTA-3)  
X= 1,398,358.02'  
Y= 10,250,995.55'  
Lat= 28°14'45.591"N  
Lon= 87°45'07.460"W

**DC708**  
(Unleased)

CURVE 3 DATA	
PI 3	
X=	1,393,577.57'
Y=	10,242,715.56'
R=	15,000.00'
T=	3,325.42'
Δ=	25°00'00"
L=	6,544.98'

MILITARY WARNING AREA (EWTA-1F)  
MILITARY WARNING AREA (EWTA-3)

**PROPOSED SPIDERMAN 8" EAST F/L**

POINT	STATION	X COORDINATE	Y COORDINATE	LATITUDE	LONGITUDE
PC3	448+15.11'	1,395,240.28'	10,245,595.46'	28°13'51.912"N	87°45'41.950"W

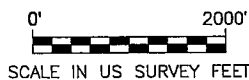
**DC751**  
OCS-G-25862  
DOMINION

414+84.33'  
BLOCKLINE CROSSING  
X= 1,396,905.67'  
Y= 10,248,480.00'  
Lat= 28°14'20.586"N  
Lon= 87°45'23.528"W

**DC752**  
(Unleased)

**PROPOSED SPIDERMAN 8" EAST BULK GAS FLOWLINE**

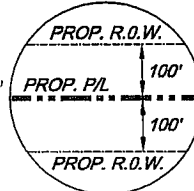
**PLAN**



SCALE IN US SURVEY FEET

NADCON version 2.1 utilized for  
WGS84-NAD27 conversions.

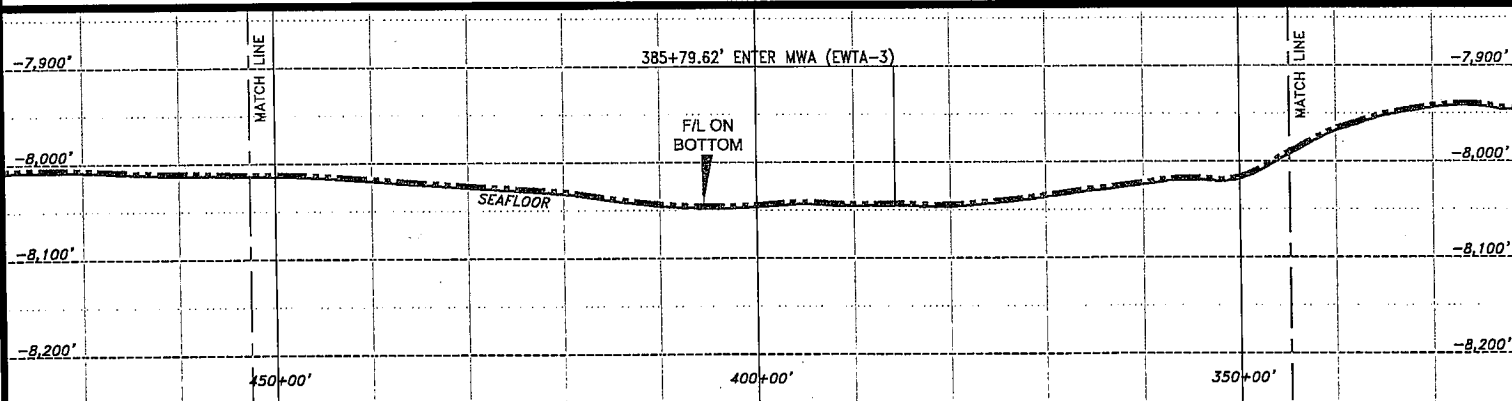
**RIGHT-OF-WAY DETAIL**



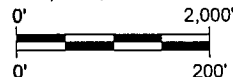
FOR PERMITTING ONLY. LENGTH OF RISERS NOT  
INCLUDED IN TOTAL LENGTH.

GEODETIC DATUM: NAD27  
ELLIPSOID: CLARKE 1866  
GRID UNITS: U.S. SURVEY FEET  
PROJECTION: UNIVERSAL TRANSVERSE MERCATOR  
ZONE: 16N  
CENTRAL MERIDIAN: 87° 00' W  
FALSE EASTING: 1,640,416.67 ft. at C.M.  
FALSE NORTHING: 0.00 ft. at 00° 00' N

**PROFILE**



HORIZONTAL SCALE:  
VERTICAL SCALE:



VERTICAL EXAGGERATION = 10

DATE: 03/24/2005 TIME: 11:35 FILENAME: J:\7458-7589\SPIDERMAN\PERMITS\PRM7458\_SM-F-EAST.DWG

**Anadarko**  
Petroleum Corporation

**PROP. SPIDERMAN 8" EAST BULK GAS F/L**  
Block 621 Well #1 PLET, Desoto Canyon Area  
to  
Block 920 Independence Hub Platform  
Mississippi Canyon Area

PREPARED  
BY:



**C&C Technologies**  
SURVEY SERVICES

739 E. KAUSTE SALOON ROAD, LAFAYETTE, LA (337) 281-0660

JOB No: 7458-7589

FILENAME: PRM7458\_SM-F-EAST.DWG

REVISED:

DATE: 03/24/2005

**SHEET 6 of 13**



467+21.55'  
BLOCKLINE CROSSING  
X= 1,393,920.00'  
Y= 10,244,088.25'  
Lat= 28°13'36.901"N  
Lon= 87°45'56.608"W

MATCH LINE

471+50.76'  
BLOCKLINE CROSSING  
X= 1,393,920.00'  
Y= 10,243,671.62'  
Lat= 28°13'32.775"N  
Lon= 87°45'56.578"W

CURVE 3 DATA	
PI 3	
X= 1,393,577.57'	
Y= 10,242,715.56'	
R= 15,000.00'	
T= 3,325.42'	
Δ= 25°00'00"	
L= 6,544.98'	

**DC751**  
OCS-G-25862  
DOMINION

**DC752**  
(Unleased)

PROPOSED SPIDERMAN 8" EAST F/L					
POINT	STATION	X COORDINATE	Y COORDINATE	LATITUDE	LONGITUDE
PC3	448+15.11'	1,395,240.28'	10,245,595.48'	28°13'51.912"N	87°45'41.950"W
PT3	513+60.09'	1,390,853.54'	10,240,808.18'	28°13'04.220"N	87°46'30.663"W

PROPOSED SPIDERMAN 8" EAST BULK GAS FLOWLINE

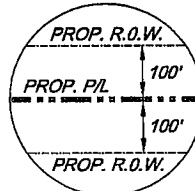
## PLAN



SCALE IN US SURVEY FEET

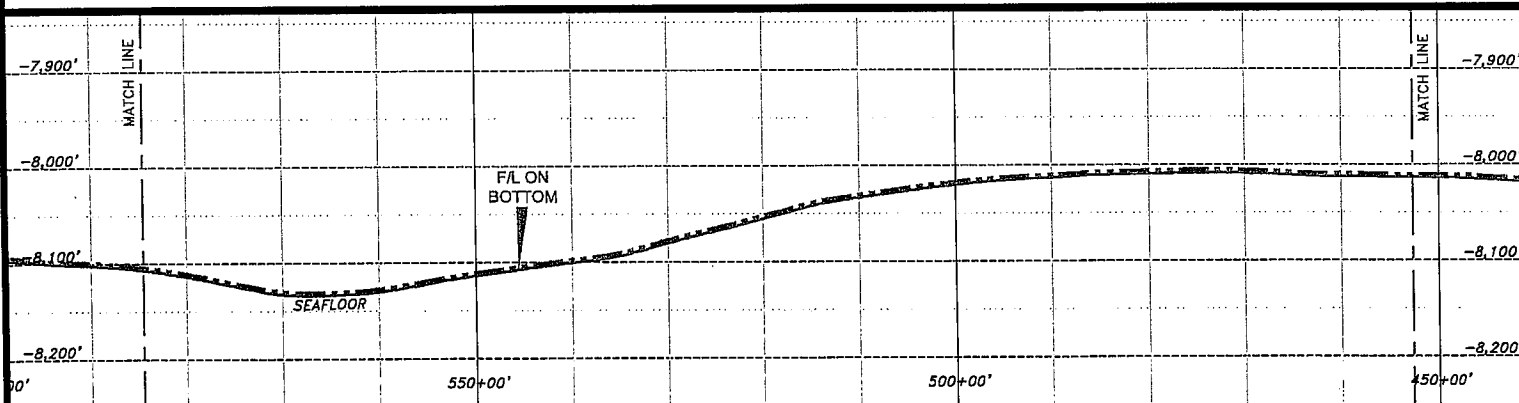
NADCON version 2.1 utilized for  
WGS84-NAD27 conversions.

### RIGHT-OF-WAY DETAIL



FOR PERMITTING ONLY. LENGTH OF RISERS NOT  
INCLUDED IN TOTAL LENGTH.

GEODETTIC DATUM: NAD27  
ELLIPSOID: CLARKE 1866  
GRID UNITS: U.S. SURVEY FEET  
PROJECTION: UNIVERSAL TRANSVERSE MERCATOR  
ZONE: 16N  
CENTRAL MERIDIAN: 87° 00' W  
FALSE EASTING: 1,640,416.67 ft. at C.M.  
FALSE NORTHING: 0.00 ft. at 00° 00' N



## PROFILE

HORIZONTAL SCALE: 1" = 2000'  
VERTICAL SCALE: 1" = 200'

DATE: 03/24/2005 TIME: 11:35 FILENAME: J:\7458-7589\SPIDERMAN\PERMITS\PRM7458\_SM-F-EAST.DWG

VERTICAL EXAGGERATION = 10

**Anadarko**  
Petroleum Corporation

**PROP. SPIDERMAN 8" EAST BULK GAS F/L**  
Block 621 Well #1 PLET, Desoto Canyon Area  
to  
Block 920 Independence Hub Platform  
Mississippi Canyon Area

PREPARED  
BY:



**C&C Technologies**  
SURVEY SERVICES  
730 L. KALISTO SALOON ROAD, LAFAYETTE, LA (337) 261-0660

JOB No: 7458-7589

FILENAME: PRM7458\_SM-F-EAST.DWG

REVISED:

DATE: 03/24/2005

**SHEET 7 of 13**

**DC750**  
(Unleased)

PROPOSED SPIDERMAN 8" EAST BULK GAS FLOWLINE

MATCH ——— LINE

**DC751**  
OCS-G-25862  
DOMINION

**DC795**  
(Unleased)

**DC794**  
OCS-G-10470  
MURPHY

656+00.88'  
BLOCKLINE CROSSING  
X= 1,379,188.18'  
Y= 10,232,640.00'  
Lat= 28°11'42.561"N  
Lon= 87°48'40.486"W

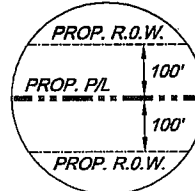
669+53.71'  
BLOCKLINE CROSSING  
X= 1,378,080.00'  
Y= 10,231,864.05'  
Lat= 28°11'34.802"N  
Lon= 87°48'52.816"W

### PLAN

0' 2000'  
SCALE IN US SURVEY FEET

NADCON version 2.1 utilized for  
WGS84-NAD27 conversions.

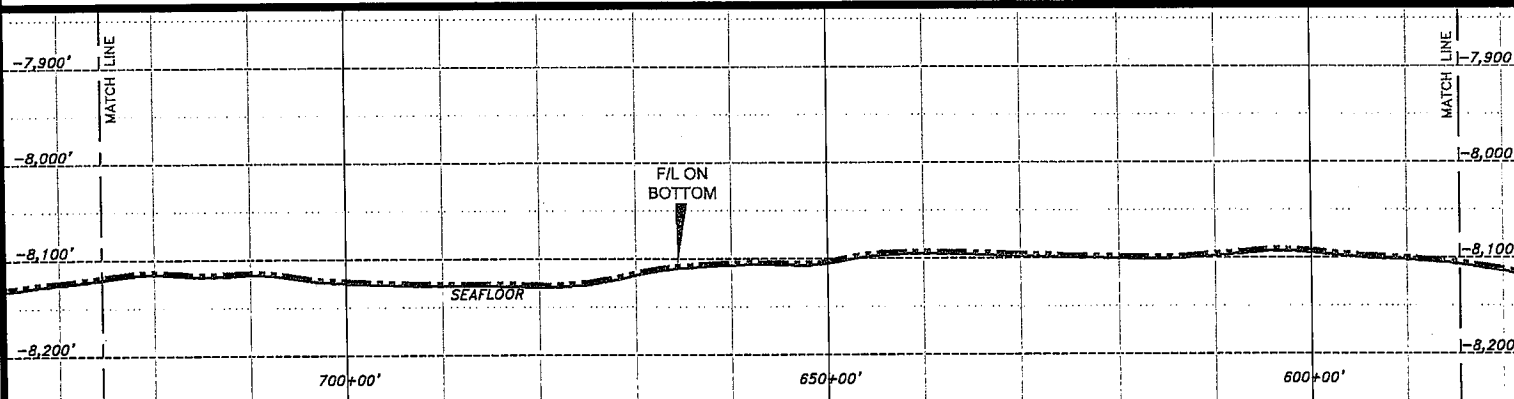
### RIGHT-OF-WAY DETAIL



FOR PERMITTING ONLY. LENGTH OF RISERS NOT  
INCLUDED IN TOTAL LENGTH.

GEODETTIC DATUM: NAD27  
ELLIPSOID: CLARKE 1866  
GRID UNITS: U.S. SURVEY FEET  
PROJECTION: UNIVERSAL TRANSVERSE MERCATOR  
ZONE: 16N  
CENTRAL MERIDIAN: 87° 00' W  
FALSE EASTING: 1,640,416.67 ft. at C.M.  
FALSE NORTHING: 0.00 ft. at 00° 00' N

### PROFILE



HORIZONTAL SCALE: 0' 2,000'  
VERTICAL SCALE: 0' 200'

DATE: 03/24/2005 TIME: 11:35 FILENAME: J:\7458-7589\SPIDERMAN\PERMITS\PRM7458\_SM-F-EAST.DWG

VERTICAL EXAGGERATION = 10

**Anadarko**  
Petroleum Corporation

PROP. SPIDERMAN 8" EAST BULK GAS F/L  
Block 621 Well #1 PLET, Desoto Canyon Area  
to  
Block 920 Independence Hub Platform  
Mississippi Canyon Area

PREPARED  
BY:



**C&C Technologies**  
SURVEY SERVICES

730 E. KAUSTE SALCOM ROAD, LAFAYETTE, LA (337) 261-0660

JOB No: 7458-7589

FILENAME: PRM7458\_SM-F-EAST.DWG

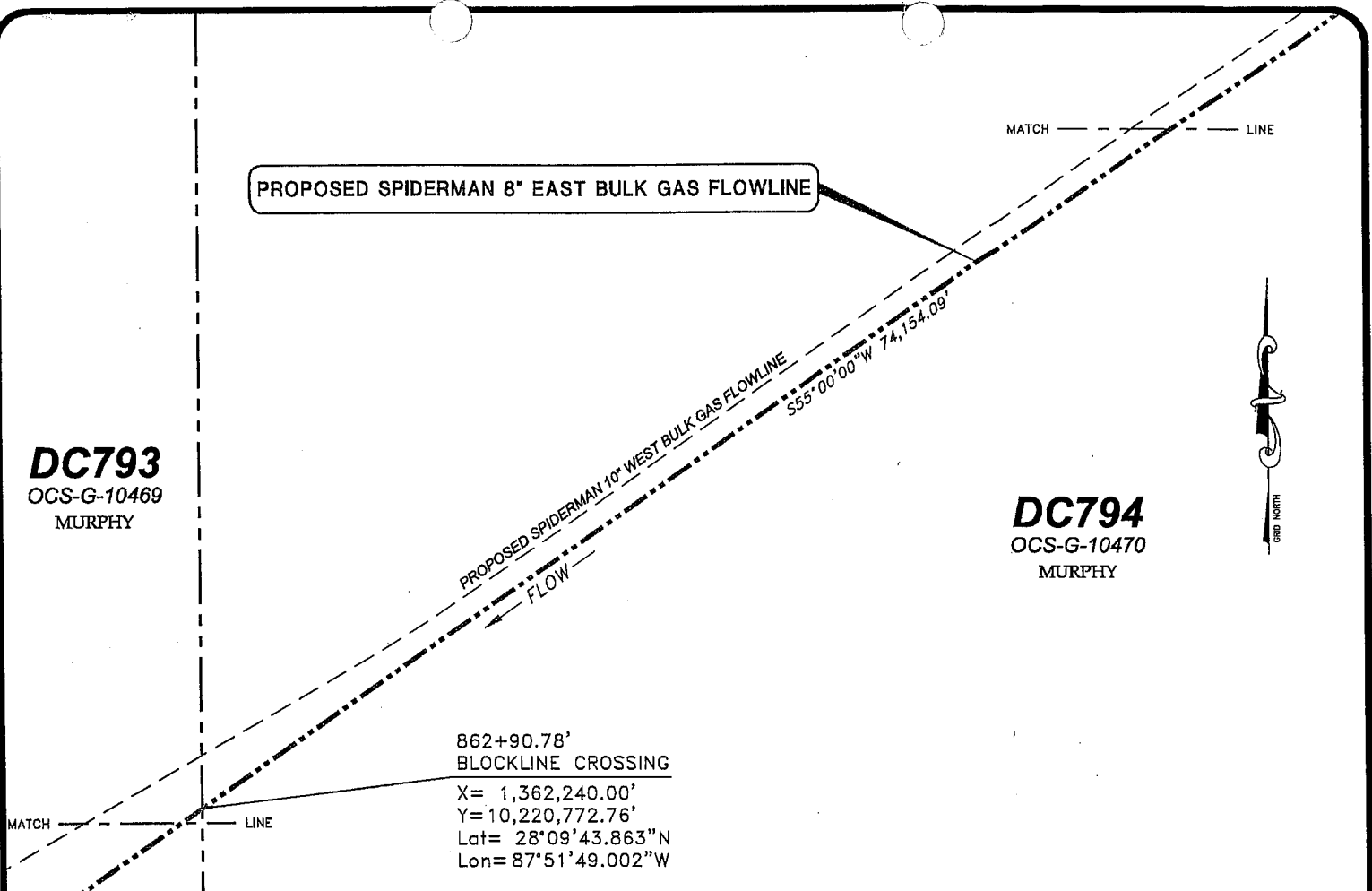
REVISED:

DATE: 03/24/2005

SHEET 8 of 13

**DC793**  
OCS-G-10469  
MURPHY

**DC794**  
OCS-G-10470  
MURPHY



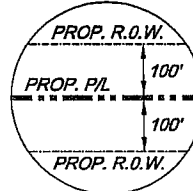
862+90.78'  
BLOCKLINE CROSSING  
X= 1,362,240.00'  
Y= 10,220,772.76'  
Lat= 28°09'43.863"N  
Lon= 87°51'49.002"W

### PLAN

0' 2000'  
SCALE IN US SURVEY FEET

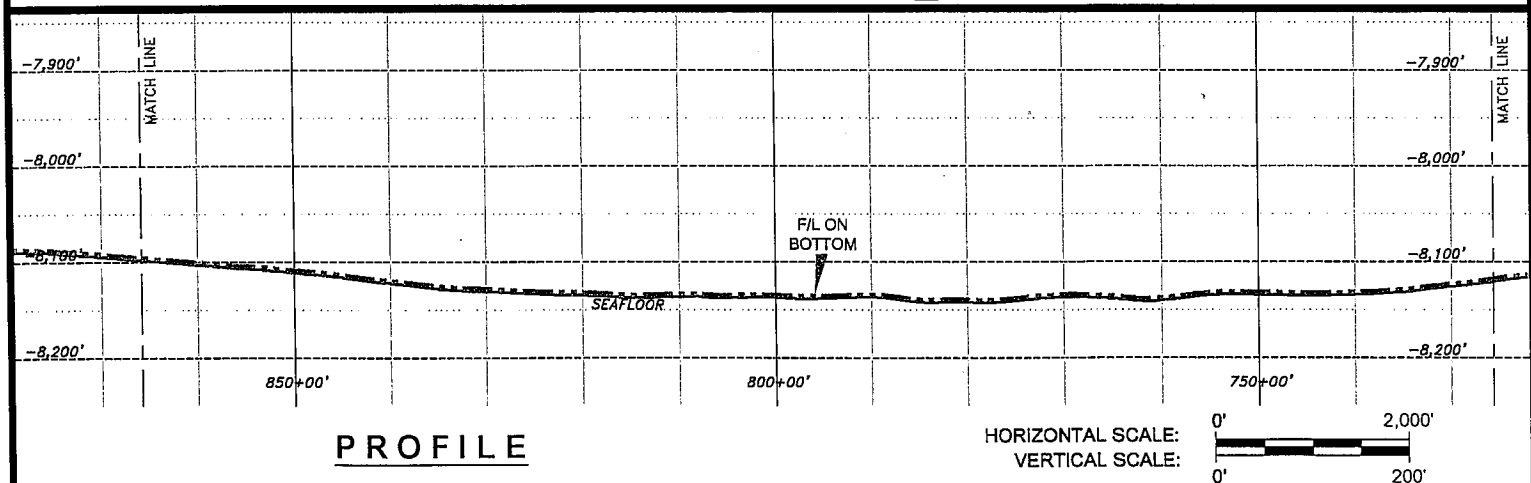
NADCON version 2.1 utilized for  
WGS84-NAD27 conversions.

### RIGHT-OF-WAY DETAIL



FOR PERMITTING ONLY. LENGTH OF RISERS NOT  
INCLUDED IN TOTAL LENGTH.

GEODEIC DATUM: NAD27  
ELLIPSOID: CLARKE 1866  
GRID UNITS: U.S. SURVEY FEET  
PROJECTION: UNIVERSAL TRANSVERSE MERCATOR  
ZONE: 16N  
CENTRAL MERIDIAN: 87° 00' W  
FALSE EASTING: 1,640,416.67 ft. at C.M.  
FALSE NORTHING: 0.00 ft. at 00° 00' N



### PROFILE

HORIZONTAL SCALE: 0' 2,000'  
VERTICAL SCALE: 0' 200'  
VERTICAL EXAGGERATION = 10

DATE: 03/24/2005 TIME: 11:35 FILENAME: J:\7458-7589\SPIDERMAN\PERMITS\PRM7458\_SM-F-EAST.DWG

**Anadarko**  
Petroleum Corporation

**PROP. SPIDERMAN 8" EAST BULK GAS F/L**  
Block 621 Well #1 PLET, Desoto Canyon Area  
to  
Block 920 Independence Hub Platform  
Mississippi Canyon Area

PREPARED  
BY:



**C&C Technologies**  
SURVEY SERVICES  
730 E. KAUSTE SALOON ROAD, LAFAYETTE, LA (337) 261-0560

JOB No: 7458-7589

FILENAME: PRM7458\_SM-F-EAST.DWG

REVISED:

DATE: 03/24/2005

**SHEET 9 of 13**



PROPOSED SPIDERMAN 8' EAST BULK GAS FLOWLINE

**DC793**

OCS-G-10469

MURPHY

862+90.78'  
BLOCKLINE CROSSING  
X= 1,362,240.00'  
Y= 10,220,772.76'  
Lat= 28°09'43.863"N  
Lon= 87°51'49.002"W

MATCH LINE

PROPOSED SPIDERMAN 10" WEST BULK GAS FLOWLINE

FLOW

**DC794**

OCS-G-10470

MURPHY

**838**

OCS-G-10475

MURPHY

**DC837**

OCS-G-10474

MOBIL

932+17.07'  
BLOCKLINE CROSSING

X= 1,356,566.31'  
Y= 10,216,800.00'  
Lat= 28°09'04.111"N  
Lon= 87°52'52.085"W

S55°00'00"W  
74,154.09'

MATCH LINE

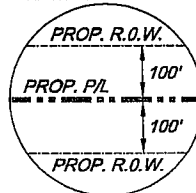
## PLAN



SCALE IN US SURVEY FEET

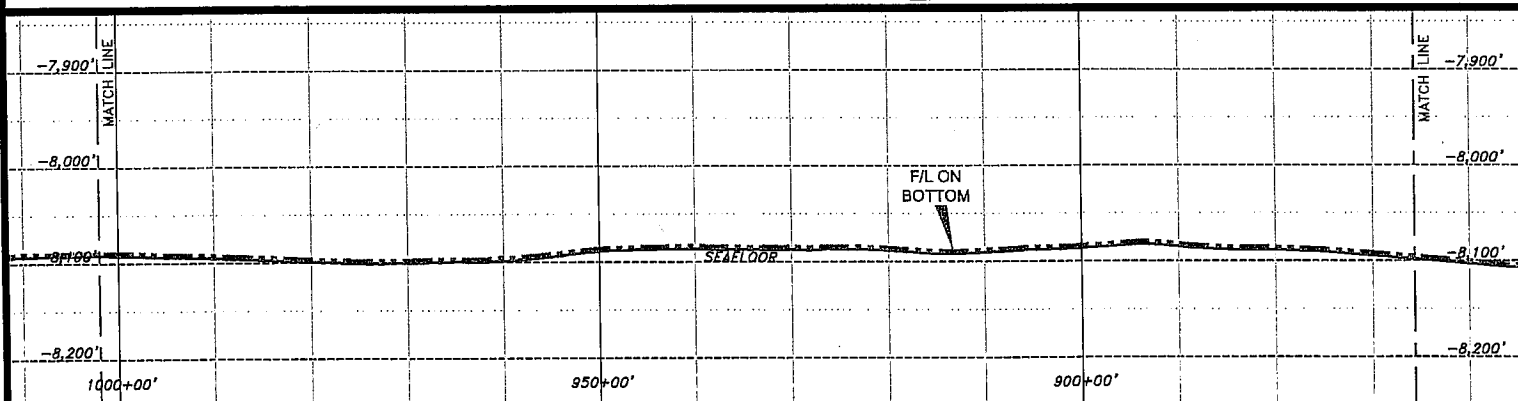
NADCON version 2.1 utilized for  
WGS84-NAD27 conversions.

### RIGHT-OF-WAY DETAIL



FOR PERMITTING ONLY. LENGTH OF RISERS NOT  
INCLUDED IN TOTAL LENGTH.

GEODETTIC DATUM: NAD27  
ELLIPSOID: CLARKE 1886  
GRID UNITS: U.S. SURVEY FEET  
PROJECTION: UNIVERSAL TRANSVERSE MERCATOR  
ZONE: 18N  
CENTRAL MERIDIAN: 87° 00' W  
FALSE EASTING: 1,640,416.67 ft at C.M.  
FALSE NORTHING: 0.00 ft. at 00° 00' N



## PROFILE

HORIZONTAL SCALE: 0' 2,000'  
VERTICAL SCALE: 0' 200'

VERTICAL EXAGGERATION = 10

DATE: 03/24/2005 TIME: 11:35 FILENAME: J:\7458-7589\SPIDERMAN\PERMITS\PRM7458\_SM-F-EAST.DWG

**Anadarko**  
Petroleum Corporation

PROP. SPIDERMAN 8" EAST BULK GAS F/L  
Block 621 Well #1 PLET, Desoto Canyon Area  
to  
Block 920 Independence Hub Platform  
Mississippi Canyon Area

PREPARED  
BY:



**C&C Technologies**  
SURVEY SERVICES  
730 E. KAUSIE SALGOM ROAD, LAFAYETTE, LA (337) 261-0560

JOB No: 7458-7589

FILENAME: PRM7458\_SM-F-EAST.DWG

REVISED:

DATE: 03/24/2005

SHEET 10 of 13

PROPOSED SPIDERMAN 8" EAST BULK GAS FLOWLINE

**MC877**  
(Unleased)

PROPOSED SPIDERMAN 10" WEST BULK GAS FLOWLINE

MATCH ——— LINE

**DC837**  
OCS-G-10474  
MOBIL

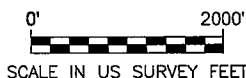
1056+27.85'  
BLOCKLINE CROSSING  
X= 1,346,400.00'  
Y= 10,209,681.47'  
Lat= 28°07'52.862"N  
Lon= 87°54'45.086"W

MATCH ——— LINE

FLOW ———

MISSISSIPPI CANYON AREA  
DESOTO CANYON AREA

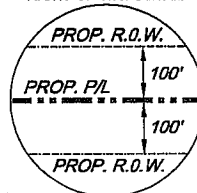
## PLAN



SCALE IN US SURVEY FEET

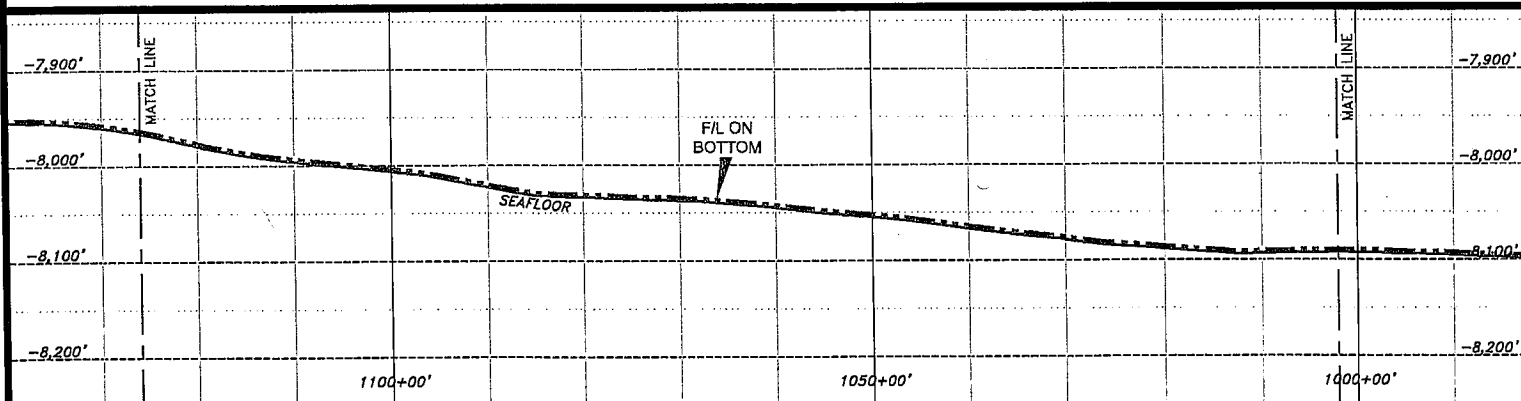
NADCON version 2.1 utilized for  
WGS84-NAD27 conversions.

## RIGHT-OF-WAY DETAIL



FOR PERMITTING ONLY. LENGTH OF RISERS NOT  
INCLUDED IN TOTAL LENGTH.

GEODETTIC DATUM: NAD27  
ELLIPSOID: CLARKE 1866  
GRID UNITS: U.S. SURVEY FEET  
PROJECTION: UNIVERSAL TRANSVERSE MERCATOR  
ZONE: 18N  
CENTRAL MERIDIAN: 87° 00' W  
FALSE EASTING: 1,640,416.67 ft. at C.M.  
FALSE NORTHING: 0.00 ft. at 00° 00' N



## PROFILE

HORIZONTAL SCALE: 0' 2,000'  
VERTICAL SCALE: 0' 200'

VERTICAL EXAGGERATION = 10

DATE: 03/24/2005 TIME: 11:35 FILENAME: J:\7458-7589\SPIDERMAN\PERMITS\PRM7458\_SM-F-EAST.DWG

**Anadarko**  
Petroleum Corporation

PROP. SPIDERMAN 8" EAST BULK GAS F/L  
Block 621 Well #1 PLET, Desoto Canyon Area  
to  
Block 920 Independence Hub Platform  
Mississippi Canyon Area

PREPARED  
BY:



**C&C Technologies**  
SURVEY SERVICES  
730 E. KAUSTE SALGOM ROAD, LAFAYETTE, LA (337) 261-0560

JOB No: 7458-7589

FILENAME: PRM7458\_SM-F-EAST.DWG

REVISED:

DATE: 03/24/2005

SHEET 11 of 13

PROPOSED SPIDERMAN 8" EAST BULK GAS FLOWLINE

**MC876**

OCS-G-21191

TFE

1249+64.92'  
BLOCKLINE CROSSING

X= 1,330,560.00'  
Y= 10,198,590.18'  
Lat= 28°06'01.801"N  
Lon= 87°57'41.069"W

1255+14.19'  
SCR/FLOWLINE TRANSITION

X= 1,330,110.07'  
Y= 10,198,275.14'  
Lat= 28°05'58.645"N  
Lon= 87°57'46.066"W

PROPOSED SPIDERMAN 10" WEST BULK GAS FLOWLINE

MATCH ——— LINE

**MC877**  
(Unleased)



**MC920**  
(Unleased)

MATCH ——— LINE

555°00'00"W  
74,154.09'

1208+33.27'  
BLOCKLINE CROSSING

X= 1,333,944.45'  
Y= 10,200,960.00'  
Lat= 28°06'25.536"N  
Lon= 87°57'03.476"W

**MC921**  
OCS-G-20010  
MURPHY

555°00'00"W  
4,000'

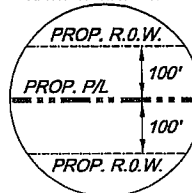
**PLAN**



SCALE IN US SURVEY FEET

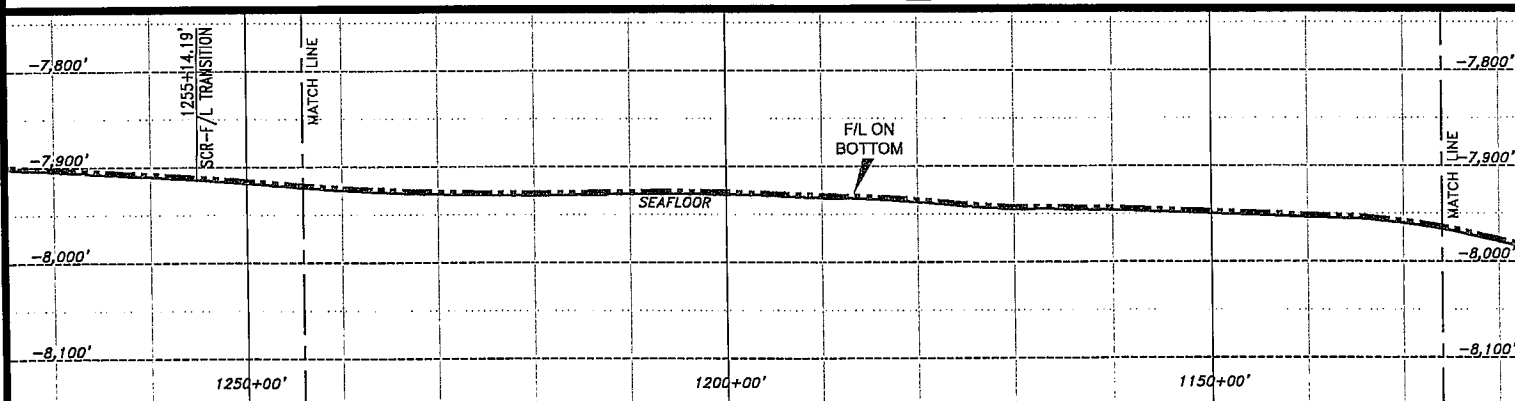
NADCON version 2.1 utilized for  
WGS84-NAD27 conversions.

RIGHT-OF-WAY DETAIL



FOR PERMITTING ONLY. LENGTH OF RISERS NOT  
INCLUDED IN TOTAL LENGTH.

GEODETIC DATUM: NAD27  
ELLIPSOID: CLARKE 1866  
GRID UNITS: U.S. SURVEY FEET  
PROJECTION: UNIVERSAL TRANSVERSE MERCATOR  
ZONE: 18N  
CENTRAL MERIDIAN: 87° 00' W  
FALSE EASTING: 1,640,416.67 ft. at C.M.  
FALSE NORTHING: 0.00 ft. at 00° 00' N



**PROFILE**

HORIZONTAL SCALE: 0' 2,000'  
VERTICAL SCALE: 0' 200'

VERTICAL EXAGGERATION = 10

DATE: 03/24/2005 TIME: 11:35 FILENAME: J:\7458-7589\SPIDERMAN\PERMITS\PRM7458\_SM-F-EAST.DWG

**Anadarko**  
Petroleum Corporation

PROP. SPIDERMAN 8" EAST BULK GAS F/L  
Block 621 Well #1 PLET, Desoto Canyon Area  
to  
Block 920 Independence Hub Platform  
Mississippi Canyon Area

PREPARED  
BY:



**C&C Technologies**  
SURVEY SERVICES

730 E. KAUSTE SALOON ROAD, LAFAYETTE, LA (337) 261-0660

JOB No: 7458-7589

REVISED:

DATE: 03/24/2005

FILENAME: PRM7458\_SM-F-EAST.DWG

SHEET 12 of 13

1295+14.19'  
SCR TOUCHDOWN PT  
X= 1,326,833.46'  
Y= 10,195,980.83'  
Lat= 28°05'35.663"N  
Lon= 87°58'22.456"W

1345+14.19' PROPOSED  
INDEPENDENCE HUB PLATFORM  
X= 1,322,737.70'  
Y= 10,193,112.95'  
Lat= 28°05'06.933"N  
Lon= 87°59'07.937"W

1255+14.19'  
SCR/FLOWLINE TRANSITION  
X= 1,330,110.07'  
Y= 10,198,275.14'  
Lat= 28°05'58.645"N  
Lon= 87°57'46.066"W

1249+64.92'  
BLOCKLINE CROSSING  
X= 1,330,560.00'  
Y= 10,198,590.18'  
Lat= 28°06'01.801"N  
Lon= 87°57'41.069"W

**MC921**  
OCS-G-20010  
MURPHY

**PROPOSED SPIDERMAN 8" EAST BULK GAS FLOWLINE**

TOTAL LENGTH = 134,514.19' = 25.48 statute miles

**MC920**  
(Unleased)

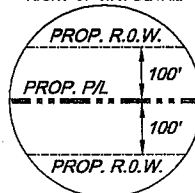
## PLAN



SCALE IN US SURVEY FEET

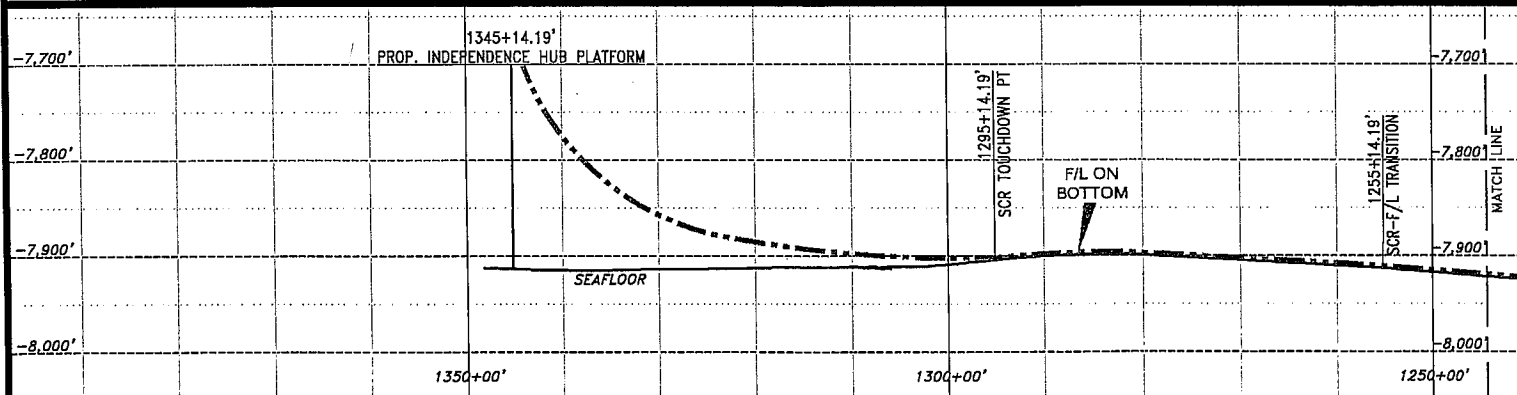
NADCON version 2.1 utilized for  
WGS84-NAD27 conversions.

### RIGHT-OF-WAY DETAIL



FOR PERMITTING ONLY. LENGTH OF RISERS NOT  
INCLUDED IN TOTAL LENGTH.

GEODETIC DATUM: NAD27  
ELLIPSOID: CLARKE 1866  
GRID UNITS: U.S. SURVEY FEET  
PROJECTION: UNIVERSAL TRANSVERSE MERCATOR  
ZONE: 16N  
CENTRAL MERIDIAN: 87° 00' W  
FALSE EASTING: 1,640,416.67 ft. at C.M.  
FALSE NORTHING: 0.00 ft. at 00° 00' N



## PROFILE

HORIZONTAL SCALE: 0' to 2,000'  
VERTICAL SCALE: 0' to 200'

DATE: 03/24/2005 TIME: 11:35 FILENAME: J:\7458-7589\SPIDERMAN\PERMITS\PRM7458\_SM-F-EAST.DWG

VERTICAL EXAGGERATION = 10

**Anadarko**  
Petroleum Corporation

**PROP. SPIDERMAN 8" EAST BULK GAS F/L**  
Block 621 Well #1 PLET, Desoto Canyon Area  
to  
Block 920 Independence Hub Platform  
Mississippi Canyon Area

PREPARED  
BY:



**C&C Technologies**  
SURVEY SERVICES  
730 E. KAUSIT SALOON ROAD, LAFAYETTE, LA (337) 261-0660

JOB No: 7458-7589

FILENAME: PRM7458\_SM-F-EAST.DWG

REVISED:

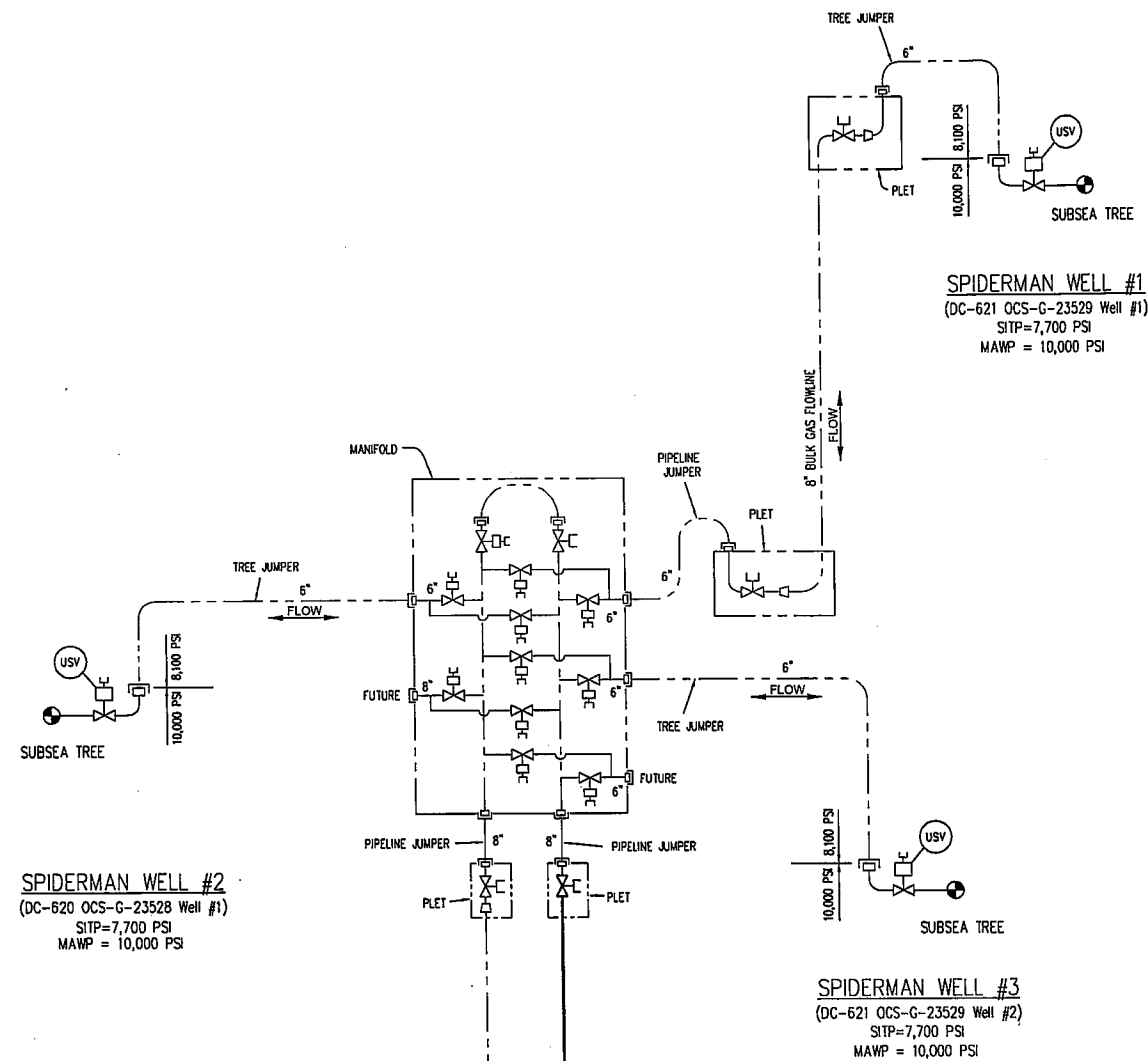
DATE: 03/24/2005

SHEET 13 of 13



## SPIDERMAN FIELD

W.D. = 8,080'



## LEGEND:

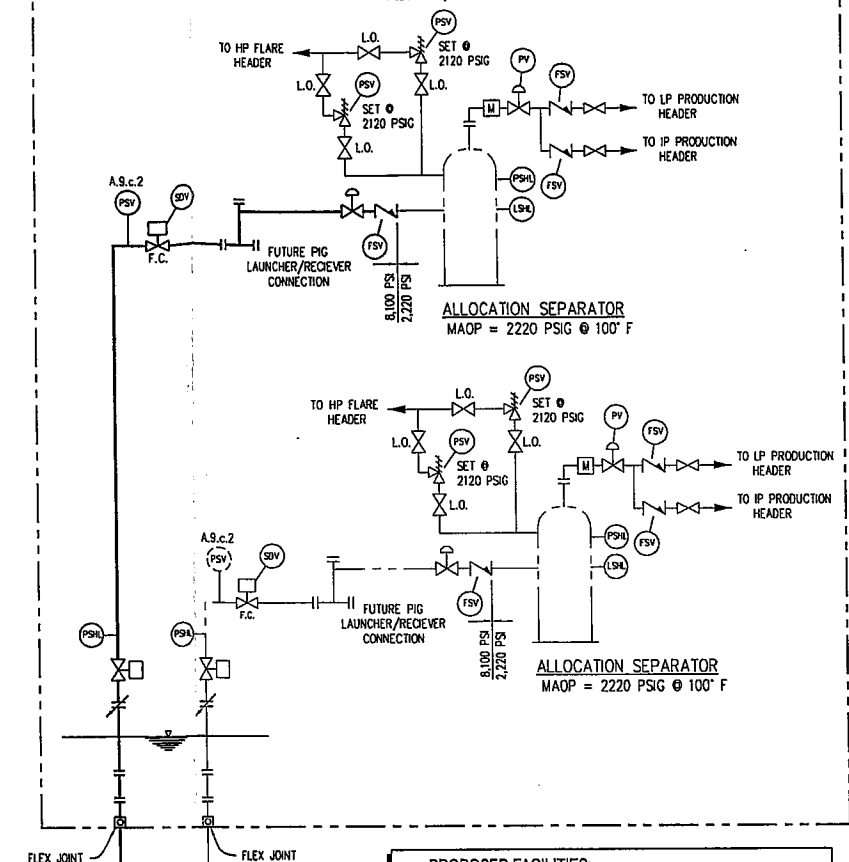
	BALL VALVE		FSV FLOW SAFETY VALVE
	CHECK VALVE		SOV SHUT DOWN VALVE
	ACTUATED VALVE w/ ROV OVERRIDE		PSV PRESSURE SAFETY VALVE
	ACTUATED VALVE		PSH PRESSURE SAFETY HIGH
	ROV OPERATED VALVE		PSL PRESSURE SAFETY LOW
	RELIEF VALVE		USV UNDERWATER SAFETY VALVE
	INSULATING FLANGE		NC NORMALLY CLOSED
	FLOW ELEMENT (ORIFICE)		FC FAIL CLOSED
	CONTROL VALVE		
	PROPOSED		

## NOTES:

1. PLATFORM SAFETY SYSTEM WILL BE SET TO SHUT-IN THE SUPPLY AND AND PIPELINE SOV UPON HIGH PRESSURE FROM PSH PRESSURE SAFETY LO (PSL) SET AT 10% BELOW NORMAL OPERATING PRESSURE

## INDEPENDENCE HUB - MC-920

W.D. = 7,913'



## PROPOSED FACILITIES:

PIPELINE: 8.625" O.D. x 0.675" W.T. API 5L X65  
 RISERS: 8.625" O.D. x 0.950" W.T. API 5L X65  
 FLANGES: API 10,000 PSI  
 VALVES: API 10,000 PSI  
 FITTINGS: ALL WELD FITTINGS 65,000 PSI MIN YIELD  
 ALL FLANGE STUD BOLTS AND NUTS TEFLO  
 COATED OR EQUIVALENT.

CATHODIC PROTECTION: SACRIFICIAL ALUMINUM ANODES

## DESIGN DATA &amp; FLOW RATES:

DESIGN CODE: DOI 30-CFR-250  
 DESIGN FLUID: BULK GAS  
 PIPELINE MAOP : (VARIES) PSIG (REFER TO MAOP TABLE BELOW)  
 MIN. HYDROSTATIC TEST PRESSURE  
 AT (+) 100' ELEVATION : PIPELINE/RISER 9,100 PSIG

INDICATES DEVICES SHOWN ON THE SAFETY  
 ANALYSIS TABLE (SAT) WHICH ARE NOT  
 REQUIRED AS DEFINED BY THE SAFETY  
 ANALYSIS CHECKLIST (SAC) IN API RP14C.

## MAOP EVALUATION:

Location Along Pipeline	Flowline System Shut In Pressure (Methane Filled) (psig)	80% Hydrostatic Test Pressure ** (psig)	Design Pressure (psig)	Maximum Allowable Operating Pressure (MAOP)*** (psig)
Riser Pipe @ +100' MSL	7,248	7,248	8,100	7,248
Riser Pipe @ -0' MSL	7,258	7,283	8,100	7,283
Riser Pipe @ -7913' MSL	8,083	10,800	8,100	8,100
Flowline @ -7913' MSL	8,083	10,800	8,100	8,100
Flowline @ -8080 fsw	8,100	10,874	8,100	8,100

- \* The operating pressure is the pressure seen at the point in the riser/flowline based upon a Methane gas filled flowline system
- \*\* The 80% hydrostatic test pressure is the pressure determined by 80% of the effective hydrostatic test pressure plus the external seawater pressure.
- \*\*\* The Maximum Allowable Operating Pressure is determined by the minimum of:
  - a. 80% Hydrostatic Test Pressure
  - b. Design Pressure

NO.	DATE	BY	REVISION DESCRIPTION	ENGINEER'S STAMP:
C	03/29/05	RKA	GENERAL REVISIONS	
B	03/28/2005	NN/ALB	APPROVED FOR PERMITTING	
A	03/22/05	RKA	ISSUED FOR REVIEW AND COMMENT	

ENGINEER'S STAMP:

DRAWN BY: R. ACREE

DATE: 03/22/05

CHECKED BY: JLB

DATE: 03/28/2005

APPROVED BY: JLB

DATE: 03/28/2005

PLOT SCALE: 1=1

SCALE: N.T.S.

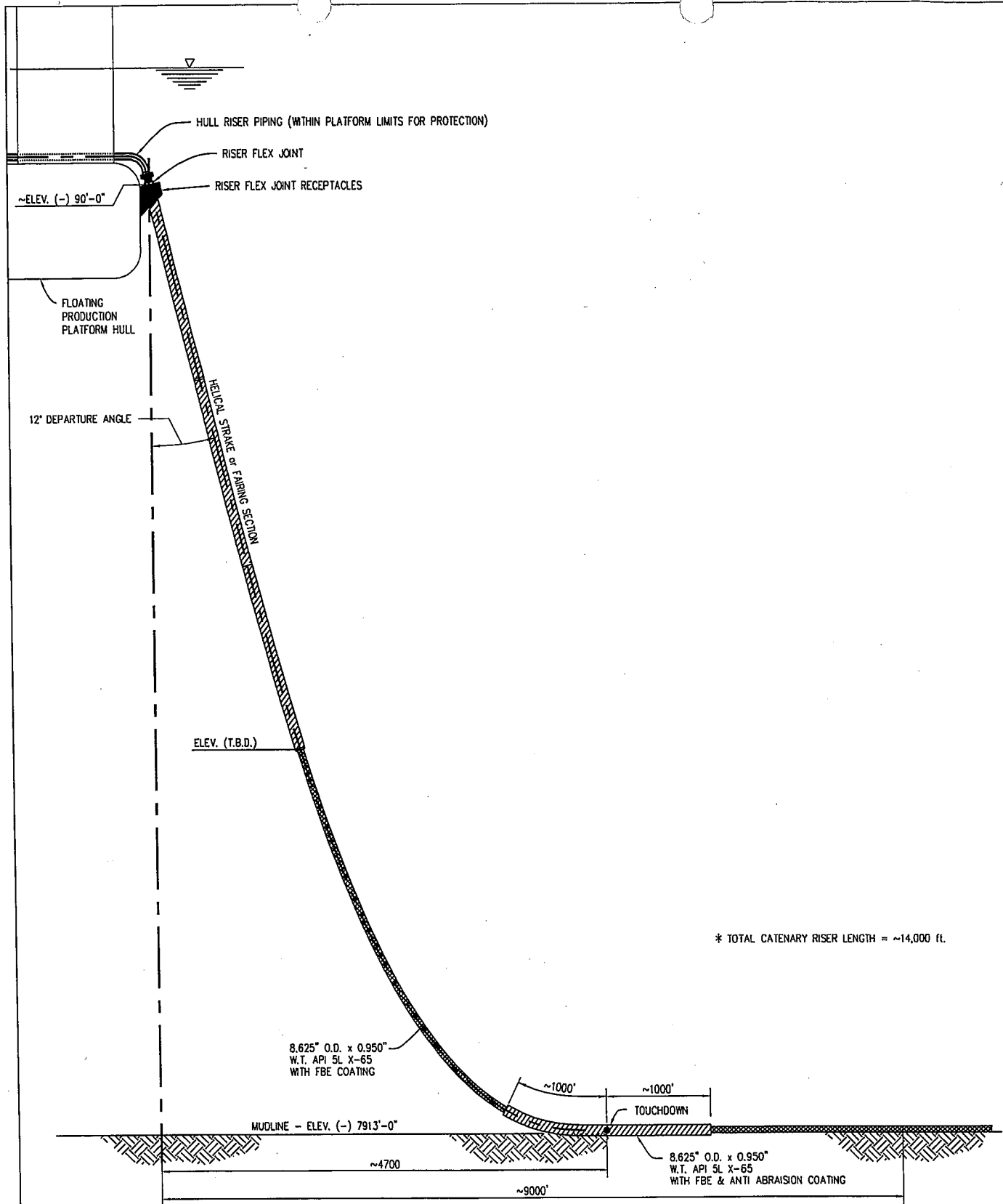
SCALE VALID FOR 6-SHEET DRAWING ONLY (24" X 36")

INDEPENDENCE HUB

MC-920 INDEPENDENCE HUB DEVELOPMENT

SPIDERMAN WEST 8" BULK GAS FLOWLINE  
SAFETY FLOW SCHEMATIC

JOB NO. 2016720 DWG NO. 2016720-SP-DWG-714 SHEET NO. 00 REV. C



# 8" Ø BULK GAS STEEL CATENARY RISER ELEVATION

SCALE: N.T.S.

INDEPENDENCE HUB

MC-920 INDEPENDENCE HUB DEVELOPMENT

SPIDERMAN 8" BULK GAS FLOWLINE  
SCR & RISER PROTECTION AT MC-920

DWG NO.	2016720-SP-DWG-713
JOB NO.	2016720
SCALE:	1=1
SCALE VALID FOR A-SIZE DRAWING (8.5" x 11") ONLY.	REV. ---A---

DRAWN BY: R. ACREE    ORIGIN. DATE: 03/22/05    REV. DATE:



VIA CERTIFIED MAIL – RETURN RECEIPT

April 4, 2005

Marathon Oil Company  
5555 San Felipe  
Houston, TX 77056

ATTN: Mike Koenig

RE: Application for an 8" Bulk Gas Right-of-Way Pipeline to be in Installed and/or  
Through DeSoto Canyon Block 664, OCS Federal Waters, Gulf of Mexico, Offshore

Mr. Koenig:

In accordance with 30 CFR, Part 250.1010(c), Anadarko Petroleum Corporation hereby gives notice we have made application with the Minerals Management Service to install the referenced 8" bulk gas right-of-way pipeline. The proposed pipeline crosses Marathon's DeSoto Canyon Area Block 664 as shown in the attached application.

We hereby request a letter of no objection to this proposal. Please send your response to my attention at the address above. I can be reached at (832) 636-8758 if you have any questions. Your prompt response would be greatly appreciated.

Sincerely,

Susan Hathcock  
Supervisor, Regulatory & Environmental

SH:sj

Enclosures



VIA CERTIFIED MAIL – RETURN RECEIPT

April 4, 2005

Dominion Exploration and Production, Inc.  
1450 Poydras Street  
New Orleans, LA 70112-6000

ATTN: Mitch Ackal

RE: Application for an 8" Bulk Gas Right-of-Way Pipeline to be installed and/or  
Through DeSoto Canyon Block 751, OCS Federal Waters, Gulf of Mexico, Offshore

Mr. Ackal:

In accordance with 30 CFR, Part 250.1010(c), Anadarko Petroleum Corporation hereby gives notice we have made application with the Minerals Management Service to install the referenced 8" bulk gas right-of-way pipeline. The proposed pipeline crosses Dominion's DeSoto Canyon Area Block 751 as shown in the attached application.

We hereby request a letter of no objection to this proposal. Please send your response to my attention at the address above. I can be reached at (832) 636-8758 if you have any questions. Your prompt response would be greatly appreciated.

Sincerely,

Susan Hathcock  
Supervisor, Regulatory & Environmental

SH:sj

Enclosures



VIA CERTIFIED MAIL – RETURN RECEIPT

April 4, 2005

Murphy Exploration & Production Company - USA  
131 South Robertson  
New Orleans, LA 70112

ATTN: Steve Jones

RE: Application for an 8" Bulk Gas Right-of-Way Pipeline to be in Installed and/or  
Through Blocks 793 and 794 DeSoto Canyon Area, and Block 921 Mississippi  
Canyon Area , OCS Federal Waters, Gulf of Mexico, Offshore

Mr. Jones:

In accordance with 30 CFR, Part 250.1010(c), Anadarko Petroleum Corporation hereby gives notice we have made application with the Minerals Management Service to install the referenced 8" bulk gas right-of-way pipeline. The proposed pipeline crosses Murphy's DeSoto Canyon Area Blocks 793 and 794, and Mississippi Canyon Area Block 921, as shown in the attached application.

We hereby request a letter of no objection to this proposal. Please send your response to my attention at the address above. I can be reached at (832) 636-8758 if you have any questions. Your prompt response would be greatly appreciated.

Sincerely,

Susan Hathcock  
Supervisor, Regulatory & Environmental

SH:sj

Enclosures



VIA CERTIFIED MAIL – RETURN RECEIPT

April 4, 2005

Exxon Mobil  
222 Benmar  
Houston, TX 77060

ATTN: Byron Morris

RE: Application for an 8" Bulk Gas Right-of-Way Pipeline to be in Installed and/or  
Through DeSoto Canyon Block 837, OCS Federal Waters, Gulf of Mexico, Offshore

Mr. Morris:

In accordance with 30 CFR, Part 250.1010(c), Anadarko Petroleum Corporation hereby gives notice we have made application with the Minerals Management Service to install the referenced 8" bulk gas right-of-way pipeline. The proposed pipeline crosses Mobil's DeSoto Canyon Area Block 837 as shown in the attached application.

We hereby request a letter of no objection to this proposal. Please send your response to my attention at the address above. I can be reached at (832) 636-8758 if you have any questions. Your prompt response would be greatly appreciated.

Sincerely,

Susan Hathcock  
Supervisor, Regulatory & Environmental

SH:sj

Enclosures



April 4, 2005

Ms. Lynn Griffin  
Coastal Program Administrator  
Florida Department of Environmental Protection  
3900 Commonwealth Boulevard, Mail Stop 47  
Tallahassee, FL 32399-3000

RE: CZM Consistency Certification  
8" Bulk Gas Pipeline Right-of-Way Application  
From Desoto Canyon Block 621 (Spiderman) Well No. 1 PLET to Mississippi  
Canyon Block 920 Floating Production Platform (Independence Hub)

Gentlemen:

Enclosed are seven (7) copies of Anadarko Petroleum Corporation's application to the Minerals Management Service for an 8" bulk gas pipeline right-of-way to be installed in and/or through Desoto Canyon Blocks 621, 620, 664, 708, 752, 751, 795, 794, 793, and 837 and Mississippi Canyon Blocks 877, 921, and 920. The onshore support base for installation of the pipeline is Fourchon, Louisiana.

If you should have any questions, please call me at 832/636-8758.

Sincerely,

Susan Hathcock  
Regulatory & Environmental Coordinator

SH/me

Enclosures (1)

# **CONSISTENCY CERTIFICATION**

## **Anadarko Petroleum Corporation's Certification of Consistency with the State of Florida Coastal Management Program**

### **INTRODUCTION**

This Consistency Certification is an evaluation by Anadarko Petroleum Corporation (APC) of its proposed right-of-way (ROW) pipeline between APC's Independence Hub in Mississippi Canyon Block 920 and its proposed production subsea facility in Desoto Canyon Area Block 621 for any reasonably foreseeable coastal effects on the land, water uses, or natural resources of the coastal zone of Florida, pursuant to the enforceable policies of the Florida Coastal Management Program (FCMP).

APC plans to lay a pipeline between the Independence Hub in Mississippi Canyon Block 920 and its subsea production facility in Desoto Canyon Block 621. The pipeline is an 8-inch east flow pipeline. The activities proposed in the ROW pipeline application will occur in outer continental shelf (OCS) waters, offshore Alabama, approximately 136 miles from the nearest Florida shoreline. APC believes that the planned activities will have little, if any, effect beyond the area immediately adjacent to the proposed activity sites, and that the possibility of any impacts to Florida's coastal zone is remote. However, APC has undertaken this consistency evaluation and believes that the proposed activities comply with the enforceable policies of the FCMP and will be conducted in a manner consistent with this Program.

The activities will be conducted in accordance with Minerals Management Service (MMS) and U.S. Environmental Protection Agency (USEPA) regulations, applicable Notices to Lessees (NTLs), conditions in the approved permits, and lease stipulations. All required Federal permits will be obtained, and all activities will be conducted in compliance with such regulations, NTLs, conditions, and stipulations.

### **CONSISTENCY ANALYSIS**

The FCMP is authorized by the Florida Coastal Management Act, Chapter 380, Land and Water Management, Part II, Coastal Planning and Management, of the Florida Statutes. For this consistency certification, APC has analyzed the proposed action in relation to 16 chapters of the Florida Statutes identified by the State as "core enforceable policies" having specific applicability to offshore oil and gas activity:

- (1) Chapter 161 – Beach and Shore Preservation
- (2) Chapter 252 – Emergency Management
- (3) Chapter 253 – State Lands
- (4) Chapter 258 – State Parks and Preserves
- (5) Chapter 259 – Land Acquisitions for Conservation or Recreation
- (6) Chapter 260 – Recreational Trails System
- (7) Chapter 267 – Archives, History, and Records Management
- (8) Chapter 288 – Commercial Development and Capital Improvements



- (9) Chapter 370 – Saltwater Fisheries
- (10) Chapter 372 – Wildlife
- (11) Chapter 373 – Water Resources
- (12) Chapter 375 – Outdoor Recreation and Conservation
- (13) Chapter 376 – Pollution Discharge Prevention and Removal
- (14) Chapter 377 – Energy Resources
- (15) Chapter 403 – Environmental Control
- (16) Chapter 582 – Soil and Water Conservation

## **1. Chapter 161 – Beach and Shore Preservation**

The enforceable policies in this chapter recognize that coastal areas are among the State's most valuable natural, aesthetic, and economic resources and that they protect and provide habitat for a variety of plant and animal life. The State is required to protect beach and dune systems from imprudent activities that could weaken, damage, or destroy the integrity of the system, manage coastal sediments to reduce erosion, and restore and maintain critically eroding beaches. The State also designates coastal areas used, or likely to be used, by sea turtles for nesting and prohibits the removal of vegetative cover that binds sand. This chapter includes Part I, Regulation of Construction, Reconstruction, and Other Physical Activity; Part II, Beach and Shore Preservation Districts; and Part III, Coastal Zone Protection.

As APC will be using the existing dock and port facilities in the Port Fourchon, Louisiana area and helicopter facilities in Galliano, Louisiana during the proposed operations, there will be no new construction, dredging, or filling on Florida's lands or waters that could weaken, damage, or destroy the integrity of the system or cause erosion of beaches. In addition, oil spill impacts on Florida beaches and other coastal areas are highly unlikely due to (1) the measures detailed in APC's Sub-Regional Oil Spill Response Plan (OSRP), which addresses procedures for containment, recovery, and removal of an oil spill and (2) the distance from shore (approximately 136 miles). The precautions included in APC's plan are consistent with the core policies of protecting beach and dune systems. Therefore, the proposed activities are consistent with Chapter 161.

## **2. Chapter 252 – Emergency Management**

The enforceable policies of this chapter direct the State to reduce the vulnerability of its people and property to natural and manmade disasters; prepare for, respond to, and reduce the impacts of natural and manmade disasters; and decrease the time and resources needed to recover from disasters. Disaster mitigation is necessary to ensure the common defense of Floridians' lives and to protect the public peace, health, and safety. The policies provide the means to assist in the prevention or mitigation of emergencies that may be caused or aggravated by the inadequate planning or regulation of facilities and land uses. State agencies are directed to keep land uses and facility construction under continuing study and identify areas that are particularly susceptible to natural or manmade catastrophic occurrences.

The proposed activities do not involve construction or operation of any facilities in the State of Florida. Therefore, a large oil spill is the only emergency that is considered relevant to this

analysis. APC has developed a Sub-Regional OSRP that outlines response actions, inspection and maintenance of response equipment, required spill response drills, governmental notification procedures, inventories of response equipment, response team organization, spill movement monitoring, and contingency plans for oil spill containment, recovery, and removal. An oil spill is highly unlikely to reach Florida waters or shorelines due to (1) the measures detailed in APC's Sub-Regional OSRP and (2) the distance from shore (approximately 136 miles). The precautions included in APC's plan are consistent with the core policies of preparing for and responding to an oil spill and reducing the vulnerability of Florida's people and resources to impacts if such a spill occurred. Therefore, the proposed activities are consistent with Chapter 252.

### **3. Chapter 253 – State Lands**

This chapter, in part, defines State-owned and State-managed lands and grants authority to acquire and lease lands and to grant rights-of-way and easements. The enforceable policies guide the management of State-owned and sovereign submerged lands and property by the Board of Trustees of the Internal Improvement Trust Fund (Trustees). Lands acquired for preservation, conservation, and recreation serve the public interest by contributing to the public health, welfare, and economy. In carrying out the requirements of this statute, the Trustees are directed to take necessary action to fully conserve and protect State lands, maintain natural conditions, protect and enhance natural areas and ecosystems, prevent damage and depredation, and preserve archaeological and historical resources. All submerged lands are considered single-use lands to be maintained in natural condition for the propagation of fish and wildlife and public recreation. Where multiple-uses are permitted, ecosystem integrity, recreational benefits, and wildlife values are conserved and protected.

During the operations along the pipeline route between Mississippi Canyon Block 920 and Desoto Canyon Block 621, APC will not seek to lease or acquire rights-of-way across Florida State lands. The proposed operations will be conducted offshore Alabama, and at existing dock and port facilities located in the Port Fourchon, Louisiana area and helicopter facilities at Galliano, Louisiana. There will be no pipeline construction requiring acquisition of rights-of-way or easements on Florida State lands. In addition, oil spill impacts on State-owned and managed lands are highly unlikely due to (1) the measures detailed in APC's Sub-Regional OSRP, which addresses procedures for containment, recovery, and removal of an oil spill and (2) the distance from shore (approximately 136 miles). The precautions in APC's plan are consistent with the core policies to fully conserve and protect State lands and other natural areas and ecosystems. Therefore, the proposed activities are consistent with Chapter 253.

### **4. Chapter 258 – State Parks and Preserves**

State parks, aquatic preserves, and recreation areas are acquired to exemplify the State's natural values and to ensure that these values are conserved for all time. Parks and preserves are managed for the non-depleting use, enjoyment, and benefit of Floridians and visitors and to contribute to the State's tourist appeal. Aquatic preserves are recognized as having exceptional biological, aesthetic, and scientific value and are set aside for the benefit of future generations. Disruptive physical activities and polluting discharges are highly restricted in aquatic preserves. State managed wild and scenic rivers possess exceptionally remarkable and unique ecological,

fish and wildlife, and recreational values and are designated for permanent preservation and enhancement for both the present and future.

Chapter 258 specifies limitations on dredge-and-fill activities, discharges, erection of structures, and drilling for oil or gas within aquatic preserves. APC's proposed activities along the proposed pipeline route are not within or adjacent to any State parks or aquatic preserves. Hydrostatic testing discharges for the proposed activity will be governed by the National Pollutant Discharge Elimination System (NPDES) General Permit or an Individual Permit; impacts will be localized in deep, offshore waters, and will not have any effect on State parks, aquatic preserves, and recreation areas. Finally, oil spill impacts in these coastal areas are highly unlikely due to (1) the measures detailed in APC's Sub-Regional OSRP, which addresses procedures for containment, recovery, and removal of an oil spill and (2) the distance from shore (approximately 136 miles). The precautions in APC's plan are consistent with the core policies of preserving and protecting the natural resources and aesthetic values of Florida's State parks, aquatic preserves, and recreation areas. Therefore, the proposed activities are consistent with Chapter 258.

## **5. Chapter 259 – Land Acquisitions for Conservation or Recreation**

This chapter discusses the "Land Conservation Act" and the acquisition of lands or water areas for preservation, conservation, and recreational purposes. The chapter indicates an area is of special importance to the State if it involves an endangered or natural resource in imminent danger of development, is of unique value to the State, will result in irreparable loss to the State, or will impair the State's ability to manage or protect other State-owned lands. The enforceable policies guide the acquisition and management of lands to conserve and maintain the State's unique natural resources, protect environmental quality, and provide recreation opportunities for the benefit of future generations. Florida's legislature and citizens have made a tremendous financial commitment to long-term land acquisitions that will preserve and restore unique ecosystems, habitats, water resources, and recreational lands.

APC will be using existing dock and port facilities in Port Fourchon, Louisiana and helicopter facilities in Galliano, Louisiana during the proposed activities. Therefore, there will be no new development, construction, dredging, or filling on Florida's lands or waters. In addition, hydrostatic testing discharges for the proposed activity will be governed by the NPDES General Permit or an Individual Permit; impacts will be localized in deep, offshore waters and will not have any effect on Florida lands being acquired or managed for preservation, conservation, or recreational purposes. Finally, oil spill impacts in these coastal areas are highly unlikely due to (1) the measures detailed in APC's Sub-Regional OSRP, which addresses procedures for containment, recovery, and removal of an oil spill and (2) the distance from shore (approximately 136 miles). The precautions in APC's plan are consistent with the core policies of managing lands to conserve and maintain the State's unique natural resources, protect environmental quality, and provide recreation opportunities. Therefore, the proposed activities are consistent with Chapter 259.

## **6. Chapter 260 – Recreational Trails System**

This chapter discusses the “Florida Greenways and Trails Act,” and the State policies to conserve, develop, and use its natural resources for healthful and recreational purposes by the establishment of a “Florida Greenways and Trails System.” The System serves to provide recreational opportunities, including, among others, canoeing, jogging, and historical and archaeological interpretation, by acquiring designated lands and waterways for open space to benefit environmentally sensitive lands and wildlife.

As APC will be using existing dock and port facilities in the Port Fourchon, Louisiana area and helicopter facilities in Galliano, Louisiana, there will be no new construction, dredging, or filling on Florida’s lands or waters, and no motorized watercraft will conduct any operations within or adjacent to any defined canoe trail necessary to ensure the safe use of a water body for canoes. Therefore, the proposed activities are consistent with the core policies of Chapter 260.

## **7. Chapter 267 – Archives, History, and Records Management**

This chapter discusses the “Florida Historical Resources Act,” the State policy to locate, inventory, and evaluate historic properties, and the preservation by the Division of Historical Resources of the Department of State, of all historical property, including sunken or abandoned ships with intrinsic historical or archaeological value. The enforceable policies recognize the State’s rich and unique heritage of historic resources and direct the State to locate, acquire, protect, preserve, operate, and interpret historic and archaeological resources for the benefit of current and future generations of Floridians. Objects or artifacts with intrinsic historic or archaeological value located on, or abandoned on, State-owned lands or State-owned submerged lands belong to the citizens of the State. The Act operates in conjunction with the National Historic Preservation Act of 1966 to require State and Federal agencies to consider the effect of their direct or indirect actions on historic and archaeological resources. These resources cannot be destroyed or altered unless no prudent alternative exists. Unavoidable impacts must be mitigated.

In compliance with MMS NTL 98-20, APC engaged C & C Technologies, Inc. (C&C) to evaluate 3-D seismic data in the preparation of a Shallow Hazards Report, in order to identify and assess the seafloor and shallow geologic conditions along the pipeline route.

The blocks along the pipeline route are not on the MMS list of blocks determined to have a high probability of either prehistoric or historical archaeological resources. Therefore, no archaeological survey or report is required under NTL 2002-G01. It is highly unlikely that objects or artifacts with intrinsic historic or archaeological value would be affected by APC’s activities. Therefore, the proposed activities are consistent with the core policies of Chapter 267.

C&C delineated 77 unidentified sonar targets during the route survey. The locations of all unidentified side-scan sonar contacts as well as manmade features will be noted and avoided during the pipeline installation.

## **8. Chapter 288 – Commercial Development and Capital Improvements**

Chapter 288 establishes enforceable policies that promote and develop the general business, trade, and tourism components of the State economy. The policies include requirements to protect and promote the natural, coastal, historical, and cultural tourism assets of the State, foster the development of nature-based tourism and recreation, and upgrade the image of Florida as a quality destination. Natural resource-based tourism and recreational activities are critical sectors of Florida's economy. The needs of the environment must be balanced with the need for growth and economic development.

As APC will be using existing dock and port facilities in the Port Fourchon, Louisiana area and helicopter facilities in Galliano, Louisiana during the proposed operations, there will be no activities conducted in Florida that would affect the general business, trade, or tourism components of the State economy. There will be no project-associated vessel or aircraft traffic in Florida waters, and there are no plans to purchase supplies or equipment in Florida. The project area is at least 136 miles from the nearest Florida shoreline, and activities will not be visible from the coast or Florida State waters. Hydrostatic testing discharges for the proposed activity will be governed by the NPDES General Permit or an Individual Permit; impacts will be localized in deep, offshore waters and will not pollute Florida land or waters. Disposal of trash and debris into the ocean is strictly prohibited, and waste management practices required by MMS under NTL 2003-G11 and Lease Stipulation No. 4 will minimize the chance of trash or debris being lost overboard and subsequently washing up on beaches. Oil spill impacts in Florida coastal areas are highly unlikely due to (1) the measures detailed in APC's Sub-Regional OSRP, which addresses procedures for containment, recovery, and removal of an oil spill and (2) the distance from shore (approximately 136 miles). The precautions in APC's plan are consistent with the core policies of protecting the natural, coastal, historical, and cultural tourism assets of the State and maintaining the image of Florida as a quality destination. Therefore, the proposed activities are consistent with Chapter 288.

## **9. Chapter 370 – Saltwater Fisheries**

The enforceable policies of this chapter direct the State to conserve and manage its renewable marine fishery resources through the protection and management of marine habitat and saltwater fisheries. The paramount conservation and management objective is the continuing health and abundance of the resource. Best available information must be used to manage and protect the State's marine, crustacean, shellfish, and finfish resources and to regulate the commercial and recreational use of the State's saltwater fisheries to ensure optimum sustained benefits to the people of the State.

Hydrostatic testing discharges will be in compliance with the standards imposed by the NPDES General Permit or an Individual Permit. Water quality is expected to quickly return to normal in the area after operations have been completed. Due to the low toxicity and rapid dispersion of discharges, little or no impact on water column biota is likely, including fish larvae that recruit to nearshore nursery areas.

APC's Sub-Regional OSRP outlines response actions for specific hypothetical spill events. The Sub-Regional OSRP makes provisions for the use of a dispersant by boat or aerial application, but notes that before a dispersant can be applied, Federal and State authorities must grant permission. Additional items that are addressed in the plan include provisions for inspection and maintenance of response equipment; required spill response drills; procedures for spill notification to government agencies; inventories of locally and nationally available response equipment; hierarchy of response team organization; provisions for disposal of wastes; and procedures for monitoring and predicting spill movement. If an oil spill should occur, APC's Sub-Regional OSRP addresses plans and procedures for containment, recovery, and removal. The precautions in APC's plan are consistent with the core policies of conserving and protecting marine habitat and saltwater fisheries and maintaining the continuing health and abundance of the resource. Therefore, APC's proposed activities are consistent with Chapter 370.

## **10. Chapter 372 – Wildlife**

This chapter discusses the "Florida Endangered and Threatened Species Act" and its implementation by the Fish and Wildlife Conservation Commission to conserve and protect the fish and wildlife resources of the State, particularly those species defined as endangered or threatened. The Fish and Wildlife Conservation Commission has established a Wildlife Habitat Program, and a Conservation and Recreation Lands Program Trust Fund, for acquiring and managing lands for the conservation of fish and wildlife. The enforceable policies direct the State to conserve its diverse fish and wildlife resources. Florida has more endangered or threatened species than any other continental state; therefore, the protection of species defined as endangered or threatened is emphasized. State lands that provide habitat needed by these species shall be maintained and enhanced for their value as fish and wildlife habitat. Substances thrown, spilled, drained, or discharged into fresh waters that injure or kill fish are expressly prohibited.

As APC will be using the existing dock and port facilities in the Port Fourchon, Louisiana area and helicopter facilities in Galliano, Louisiana, there will be no new construction, dredging, or filling on Florida's lands or waters to affect wildlife habitats or recreation lands. Hydrostatic testing discharges for the proposed activity will be governed by the NPDES General Permit or an Individual Permit; impacts will be localized in deep, offshore waters and will not pollute Florida land or waters. Disposal of trash and debris into the ocean is strictly prohibited, and waste management practices required by MMS under NTL 2003-G11 and Lease Stipulation No. 4 will minimize the chance of trash or debris being lost overboard and subsequently endangering Florida wildlife. Oil spill impacts in Florida coastal areas are highly unlikely due to (1) the measures detailed in APC's Sub-Regional OSRP, which addresses procedures for containment, recovery, and removal of an oil spill and (2) the distance from shore (approximately 136 miles). The precautions in APC's plan are consistent with the core policies of conserving Florida's fish and wildlife resources, including endangered or threatened species. Therefore, the proposed activities are consistent with Chapter 372.

## **11. Chapter 373 – Water Resources**

This chapter establishes enforceable policies that guide the management and protection of water resources, water quality, and environmental quality. The policies address the conservation of surface and ground waters for full beneficial use; sustainable water management; preservation of natural resources, fish, and wildlife; protecting public land; and promoting the health and general welfare of Floridians. The State manages and conserves water and related natural resources by determining whether activities will unreasonably consume water, degrade water quality, or adversely affect environmental values such as protected species habitat, recreational pursuits, and marine productivity.

As APC will be using the existing dock and port facilities in the Port Fourchon, Louisiana area and helicopter facilities in Galliano, Louisiana, there will be no usage of Florida water resources and no new construction, dredging, or filling on Florida's lands or waters to affect water quality, protected habitat, recreational pursuits, or marine productivity. Hydrostatic testing discharges for the proposed activity will be governed by the NPDES General Permit or an Individual Permit; impacts will be localized in deep, offshore waters and will not pollute Florida land or waters. In addition, oil spill impacts on Florida water resources are highly unlikely due to (1) the measures detailed in APC's Sub-Regional OSRP, which addresses procedures for containment, recovery, and removal of an oil spill and (2) the distance from shore (approximately 136 miles). The precautions in APC's plan are consistent with the core policies of conserving surface and ground waters for full beneficial use and protecting natural resources, fish, wildlife, and public lands. Therefore, the proposed activities are consistent with Chapter 373.

## **12. Chapter 375 – Outdoor Recreation and Conservation**

This chapter discusses the "Outdoor Recreation and Conservation Act of 1963" and the responsibility of the Florida Department of Environmental Protection (FDEP) to implement a comprehensive outdoor recreation plan in cooperation with the Fish and Wildlife Conservation Commission and the water management districts. The FDEP participates in the land and water conservation fund program to acquire lands and water areas for outdoor recreation, natural resource conservation, wildlife and forestry management, and water conservation and control. The Act also empowers the Fish and Wildlife Conservation Commission to regulate motor vehicle access and traffic control on public lands.

APC will be using the existing dock and port facilities in the Port Fourchon, Louisiana area and helicopter facilities in Galliano, Louisiana. Therefore, there will be no new construction, dredging, or filling on Florida's lands or waters, and no new vehicle traffic on public lands. In addition, oil spill impacts on Florida conservation, recreation, or resource areas are highly unlikely due to (1) the measures detailed in APC's Sub-Regional OSRP, which addresses procedures for containment, recovery, and removal of an oil spill and (2) the distance from shore (approximately 136 miles). The precautions in APC's plan are consistent with the core policies of preserving Florida's lands and water areas for outdoor recreation, conservation, and wildlife management. Therefore, the proposed activities are consistent with Chapter 375.

### **13. Chapter 376 – Pollution Discharge Prevention and Removal**

Chapter 376 declares that the preservation of the seacoast as a source of public and private recreation and the preservation of water and certain lands are matters of the highest urgency and priority and shall be accomplished by maintaining surface and ground water, coastal waters, estuaries, tidal flats, beaches, and public lands adjoining the seacoast in as close to a pristine condition as possible. The discharge of pollutants into or upon any coastal waters, estuaries, tidal flats, beaches, and lands adjoining the seacoast of the State is declared to be inimical to the paramount interests of the State and is prohibited. The statute provides for hazards and threats of danger and damages resulting from any pollutant discharge to be evaluated, requires the prompt containment and removal of pollution, provides penalties for violations, and ensures the prompt payment of reasonable damages from a discharge. Portions of Chapter 376 serve as a complement to the national contingency plan portions of the Federal Water Pollution Control Act.

APC has prepared a Sub-Regional OSRP as required for the Eastern Planning Area, which must be consistent with the National Contingency Plan, and with the Oil Pollution Act of 1990 (OPA), in order to obtain MMS approval. As APC will be using the existing dock and port facilities in the Port Fourchon, Louisiana area, there will be no transfers between vessels and Florida onshore facilities. As to transfers between offshore facilities and vessels, APC's Sub-Regional OSRP outlines response actions, inspection and maintenance of response equipment, required spill response drills, governmental notification procedures, inventories of response equipment, response team organization, spill movement monitoring, and contingency plans for oil spill containment, recovery, and removal. The precautions in APC's plan are consistent with the core policies of preventing unauthorized pollutant discharges and maintaining surface and ground water, coastal waters, estuaries, tidal flats, beaches, and public lands in as close to a pristine condition as possible. Therefore, the proposed activities are consistent with Chapter 376.

### **14. Chapter 377 – Energy Resources**

The State's policy is to conserve and control the oil and gas resources in the State, including products made from these resources, and to safeguard the health, property, and welfare of Floridians. To accomplish this, Chapter 377 addresses the regulation, planning, and development of the energy resources of the State. The FDEP is authorized to regulate all phases of exploration, drilling, and production of oil, gas, and other petroleum products in the State. This chapter describes the permitting requirements and criteria necessary to drill for and develop oil and gas. FDEP rules ensure that all precautions are taken to prevent the spillage of oil or any other pollutant in all phases of extraction and transportation.

The State explicitly prohibits pollution resulting from drilling and production activities. No person drilling for or producing oil, gas, or other petroleum products may pollute land or water; damage aquatic or marine life, wildlife, birds, or public or private property; or allow any extraneous matter to enter or damage any mineral or freshwater-bearing formation. Penalties for violations of any provisions of this chapter are detailed.

The proposed project does not involve any activities in Florida that are regulated by the FDEP. Hydrostatic testing discharges will be in accordance with the NPDES General Permit or an



Individual Permit; impacts will be localized in deep, offshore waters and will not pollute Florida land or waters, damage wildlife or public or private property, or contaminate any mineral or freshwater-bearing formation. Disposal of trash and debris into the ocean is strictly prohibited, and waste management practices required by MMS under NTL 2003-G11 and Lease Stipulation No. 4 will minimize the chance of trash or debris being lost overboard and subsequently washing up on Florida shorelines or waters. Oil spill impacts in Florida coastal areas are highly unlikely due to (1) the measures detailed in APC's Sub-Regional OSRP, which addresses procedures for containment, recovery, and removal of an oil spill and (2) the distance from shore (approximately 136 miles). The precautions in APC's plan are consistent with the core policies of safeguarding the health, property, and welfare of Floridians and preventing pollution during offshore activities. Therefore, the proposed activities are consistent with Chapter 377.

## **15. Chapter 403 – Environmental Control**

Chapter 403 establishes enforceable policies that guide environmental control efforts by conserving State waters, protecting and improving water quality for consumption and for the propagation of fish and wildlife, and maintaining air quality to protect human health and plant and animal life. Statutory provisions are enacted to protect the health, peace, safety, and general welfare of the people of the State. The statute provides wide-ranging authority to address various environmental control concerns, including air and water pollution, resource recovery and management, solid and hazardous waste management, drinking water protection, pollution prevention, ecosystem management, and natural gas transmission pipeline siting. Chapter 403 declares that pollution of the air and waters is a menace to public health and is harmful to wildlife, fish, and other aquatic life; that the policy of the State is to conserve, maintain, and improve its waters and air quality, and to develop a comprehensive program for its prevention, abatement, and control of pollution by establishing ambient air and water quality standards.

Projected air emissions for the proposed activities fall well below allowable exemption levels and will not result in onshore ambient air concentrations above significant levels as prescribed in the regulations. Therefore, the proposed activities are consistent with the core policies of Chapter 403.

Hydrostatic testing discharges shall be in compliance with the standards imposed by the USEPA Region IV NPDES General Permit or an Individual Permit. Discharges from project activities may temporarily affect water quality in the immediate vicinity of the operations, but would not affect water quality or wildlife in Florida State waters. Pollution of coastal waters by an oil spill is highly unlikely due to (1) the measures detailed in APC's Sub-Regional OSRP, which addresses procedures for containment, recovery, and removal of an oil spill; and (2) the distance from shore (approximately 136 miles). The precautions in APC's plan are consistent with the core policies of conserving State waters and protecting water and air quality. Therefore, the proposed activities are consistent with Chapter 403.

## 16. Chapter 582 – Soil and Water Conservation

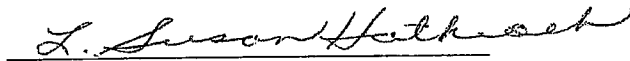
The enforceable policies in this chapter require the conservation, development, and use of soil and water resources to preserve natural resources and to control and prevent soil erosion. Soil stabilization preserves State and private lands, protects wildlife habitat, maintains water quality, assists in the maintenance of navigable waterways, and prevents the impairment of dams and reservoirs.

The proposed operations will be conducted offshore Alabama, and at APC's existing dock and port facilities located in the Port Fourchon, Louisiana area and helicopter facilities at Galliano, Louisiana. Routine operations will not involve any construction or other activities in Florida that could result in soil erosion. Oil spill impacts on Florida soils are highly unlikely due to (1) the measures detailed in APC's Sub-Regional OSRP, which addresses procedures for containment, recovery, and removal of an oil spill and (2) the distance from shore (approximately 136 miles). Any cleanup or recovery activities in Florida would be conducted using applicable best management practices to minimize soil erosion. The precautions in APC's plan are consistent with the core policies of preserving Florida's natural resources and preventing soil erosion. Therefore, the proposed activities are consistent with Chapter 582.

### CERTIFICATION

The proposed activity complies with the enforceable policies of Florida's approved Coastal Management Program and will be conducted in a manner consistent with such Program.

ANADARKO PETROLEUM CORPORATION



L. Susan Hathcock  
Regulatory & Environmental Coordinator  
April 1, 2005



April 4, 2005

Coastal Management Division  
ATTN: OCS Plans  
P. O. Box 44487  
Baton Rouge, LA 70804-4487

RE: CZM Consistency Certification  
8" Bulk Gas Pipeline Right-of-Way Application  
From Desoto Canyon Block 621 (Spiderman) Well No. 1 PLET to Mississippi  
Canyon Block 920 Floating Production Platform (Independence Hub)

Gentlemen:

Enclosed is a copy of Anadarko Petroleum Corporation's application to the Minerals Management Service for an 8" bulk gas pipeline right-of-way to be installed in and/or through Desoto Canyon Blocks 621, 620, 664, 708, 752, 751, 795, 794, 793, and 837 and Mississippi Canyon Blocks 877, 921, and 920. The onshore support base for installation of the pipeline is Fourchon, Louisiana. Our check in the amount of \$300.00 is enclosed covering the processing fee for a federal consistency determination for this right-of-way.

If you should have any questions, please call me at 832/636-8758.

Sincerely,

Susan Hathcock  
Regulatory & Environmental Coordinator

SH/me

Enclosures (2)

COASTAL ZONE MANAGEMENT PROGRAM  
CONSISTENCY CERTIFICATION

From Desoto Canyon Block 621 Well No. 1 PLET

To Mississippi Canyon Block 920 Floating Production Platform

25.48  
Length (miles)

The proposed activities described in detail in this right-of-way pipeline application comply with the enforceable policies of Louisiana's approved Coastal Management Program(s) and will be conducted in a manner consistent with such Program(s).

Anadarko Petroleum Corporation  
Right-of-Way Applicant

L. Susan Hathcock  
Certifying Official

4/4/05  
Date



April 4, 2005

Mississippi Department of Marine Resources  
Coastal Ecology Office  
ATTN: Mike Walker  
1141 Bayview Avenue, Suite 101  
Biloxi, MS 39530

RE: CZM Consistency Certification  
8" Bulk Gas Pipeline Right-of-Way Application  
From Desoto Canyon Block 621 (Spiderman) Well No. 1 PLET to Mississippi  
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Mr Walker:

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If you should have any questions, please call me at 832/636-8758.

Sincerely,

Susan Hathcock  
Regulatory & Environmental Coordinator

SH/me

Enclosures (1)

**COASTAL ZONE MANAGEMENT PROGRAM  
CONSISTENCY CERTIFICATION**

**From** Desoto Canyon Block 621 Well No. 1 PLET

**To** Mississippi Canyon Block 920 Floating Production Platform

25.48  
Length (miles)

The proposed activities described in detail in this right-of-way pipeline application comply with the enforceable policies of Mississippi's approved Coastal Management Program(s) and will be conducted in a manner consistent with such Program(s).

Anadarko Petroleum Corporation  
Right-of-Way Applicant

L. Susan Hathcock  
Certifying Official

4/4/05  
Date

Enclosure

Right-of-Way Pipeline Application		A	B	C	D	E	F	G	H
1	Instructions:				Segment No.:				
2	1. Complete one form for the pipeline segment submitted in your application. A ROW application may only contain one proposed pipeline segment.								
3	2. Complete one form for each unattached umbilical submitted in your application.								
4	3. Provide response/data for all items that are shaded. Other items as required.								
5	4. Provide one original and three identical copies of all application materials.								
6									
7									
8									
9									
10	<b>Pipeline Route Data</b>								
11	List all blocks and lease numbers contacted by the pipeline. (Insert rows as needed)		<b>Area</b>	<b>Block No.</b>	<b>Lease No.</b>	<b>Operator</b>			
12	(If block is unleased, so note.)		DC	621	OCS-G-23529	Anadarko Petroleum Corporation			
13			DC	620	OCS-G-23528	Anadarko Petroleum Corporation			
14			DC	664	OCS-G-23532	Marathon Oil Company			
15			DC	708	Open				
16			DC	752	Open				
17			DC	751	OCS-G-25862	Dominion Exploration & Production, Inc.			
18			DC	795	Open				
19			DC	794	OCS-G-10470	Murphy Exploration & Production Company, USA			
20			DC	793	OCS-G-10469	Murphy Exploration & Production Company, USA			
21			DC	837	OCS-G-10474	Mobil Oil Exploration & Producing Southeast Inc.			
22			MC	877	Open				
23			MC	921	OCS-G-20010	Murphy Exploration & Production Company, USA			
24			MC	920	Open				
25	<b>Contact Information</b>								
26	Applicant company name (ROW permittee/holder)	Anadarko Petroleum Corporation							
27	Name of company representative signing application	Richard E. Sittes							
28	Phone No.	832-636-3839							
29	Fax	832-636-8297							
30	E-Mail	rick_sittes@anadarko.com							
31	Mailing address	1201 Lake Robbins Drive							
32		The Woodlands, TX 77380							
33	ROW holder's MMS code (five digit)	00981							
34									
35	Shaded operator company name	Anadarko Petroleum Corporation							
36	Phone No.	832-636-8758							
37	Fax	832-636-8208							
38	E-Mail	susan_hathcock@anadarko.com							
39	Mailing address	1201 Lake Robbins Drive							
40		The Woodlands, TX 77380							
41	Operator's MMS code (five digit)	00981							
42									
43	Regulatory contact (Name)	Susan Hathcock							
44	Company name	Anadarko Petroleum Corporation							
45	Phone No.	832-636-8758							
46	Fax	832-636-8208							
47	E-Mail	susan_hathcock@anadarko.com							
48									
49	Technical contact (Name)	Dwayne Doiron							

	A	B	C	D	E	F	G	H
50	Company name	Cypress Consulting						
51	Phone No	713-816-0247						
52	Fax	281-955-2664						
53	E-Mail	cdarond@cc-llc.net						
54								
55	<b>Fees</b>							
56	Application fee of \$2,350 enclosed? (Required)	Yes						
57	Rental fee of \$15 per mile or every fraction thereof enclosed? (Required)	Yes						
58	Right-of-way length (miles) e.g., 7.54	25.48						
59	Total check amount	\$4,300.00						
60	Check date	3/31/2005						
61	Check number	748463						
62	Name of financial institution upon which check is written	Mellon Bank, N.A.						
63								
64	<b>F Pipeline Data</b>							
65	Service, e.g., oil, gas, bulk gas, lift, injection, service, etc.	Gas						
66	Total pipeline length (feet) - excluding risers	134,514						
67	Length of pipeline in Federal waters (feet)	NA						
68	Length of pipeline in State waters (feet/NA)	Yes						
69	Pipeline designed for bi-directional flow? (Y/N)	Yes						
70	Alternate line service, e.g., oil, gas, bulk gas, lift, injection, service, etc.	Yes						
71	Supervisory Control and Data Acquisition system for leak detection installed? (Y/N)	Yes						
72	If yes, system type, e.g., over/short, pressure point analysis, volumetric, etc.	ppa						
73								
74	<b>Pipeline Origin</b>							
75	Type Facility, e.g., Platform, Well, Subsea Well, PLEM, Subsea Manifold, Subsea Tie-in	Subsea Manifold						
76	Number/Identifier, e.g., A, 1, 4-B, 13336, (Number/Segment Number/Identifier/NA)	NA						
77	Manifold platform? (Y/NA/NA)	No						
78	Area	Desoto Canyon						
79	Block	621						
80	OCS lease	OCS-G-23529						
81	Pig launcher? (Y/N)	No						
82	System designed for "smart" pigs? (Y/NA/NA)	No						
83								
84	<b>Pipeline Destination</b>							
85	Facility, e.g., Platform, Well, Subsea Well, PLEM, Subsea Manifold, Subsea Tie-in	Platform						
86	Number/Identifier, e.g., A, 1, 4-B, (Number/Segment Number/Identifier/NA)	Proposed						
87	Manifold platform? (Y/NA/NA)	Yes						
88	Area	Mississippi Canyon						
89	Block	920						
90	OCS lease	Open						
91	Pig receiver? (Y/NA/NA)	No						
92								
93	<b>Pipeline Appurtenances</b>							
94	Manifold/subsea templates/etc. along pipeline other than at origin or destination? (Y/N)	No						
95	If yes, specify appurtenant type							
96	If yes, specify appurtenant area and block location, e.g., MP 134							
97								
98	<b>Construction/Air Quality Data</b>							
99	Pipeline installation method, e.g., lay barge, DP vessel, jack up	DP Vessel						
100	Maximint anchor spread (feet or NA)	NA						
101	Onshore Facility Location	Fouchon						





	A	B	C	D	E	F	G	H
154	Coating thickness (mils) (Mils/NA)	NA						
155	Riser guard design attached? Required if origin is caisson or platform (Y/NA)	NA						
156	Catenary riser? (Y/N)	NA						
157	If yes, V/V reduction, installation tension, anchoring, tension monitoring attached? (Y/NA)	NA						
158								
159	<b>Receiving Riser Design Data</b>							
160	Outside diameter (inches)	Diameter 1	Diameter 2	Diameter 3				
161	Wall thickness (inches)	8 5/8 0.960						
162	Grade	API-5L X65						
163	Hydrostatic test pressure (psig)	9100 (refer to application)						
164	H/F duration (hours) (Must be equal to or greater than eight)	8						
165	splash zone=S-Z	Below S.Z.	In S.Z.	Above S.Z.				
166	Type external corrosion coating	Fusion Bonded Epoxy						
167	Coating thickness (mils/or inches)	18						
168	Internal corrosion coating (Type/NA)	NA						
169	Coating thickness (mils) (Mils/NA)	NA						
170	Riser guard design attached? Required if origin is caisson or platform (Y/NA)	NA						
171	Catenary riser? (Y/N)	Yes						
172	If yes, V/V reduction, installation tension, anchoring, tension monitoring attached? (Y/NA)	Yes						
173								
174	<b>Flange and Valve Data</b>							
175	Flange type (ANSI/API)	API						
176	Flange pressure rating (psig)	10,000						
177	Detected pressure rating (psig/NA)	10,000						
178	Valve type (ANSI/API)	API						
179	Valve pressure rating (psig)	10,000						
180	Detected pressure rating (psig/NA)	10,000						
181								
182	<b>Pipeline Burial Data</b>							
183	Buried: minimum of three feet? Y/NA Self Burial: required if less than 200' water depth)	N						
184	Burial method (jet, blow, self, other/specify)	NA						
185	If self burial, provide seafloor strength in ksf. (Must be less than 0.2 ksf) (kips/NA)	NA						
186	Data supporting self burial attached? (Y/NA)	NA						
187								
188	<b>Miscellaneous Data</b>							
189	Not discriminated in employment form attached? (Required)	Yes						
190								
191	<b>Oil Spill Financial Responsibility Requirement Determination</b>							
192	Static Pipeline Volume (Bbls.) if greater than 1,000 then WCD volume required	9425						
193	Worst case discharge volume (Bbls.) if greater than 1,000 then OSFR required	5						
194	Proposed: Right of Way included under company OSFR coverage? (Yes/Pending/NA)	Yes						
195								
196	Certified plat attached? Plat is required	Yes						
197	Diskette per NITL 98-09 attached? Diskette is required	Yes						
198								
199	Does pipeline cross into State waters (Y/N)							
200	If yes, State permit required (Attached/Applied For/NA)	NA						
201	If yes, COE permit required (Attached/Applied For/NA)	NA						
202								
203	Minimum water depth (feet below sea level)	7913						
204	Maximum water depth (feet below sea level)	8080						
205								



	A	B	C	D	E	F	G	H
254	<b>Subsea Tie-in Data</b>							
255	Does pipeline tie into a subsea pipeline? (Y/N)	No						
256	Ties to existing valve or hot tap? (Identify which/NA)	NA						
257	Segment number of pipeline being tied in to (SN/NA)	NA						
258	MAOP of pipeline being tied in to (MAOP/NA)	NA						
259	If existing valve, letter of no objection from tie-in operator attached? (Yes/NA)	NA						
260	If hot tap, appurtenance application submitted to MMS? (Yes/NA)	NA						
261	Is assembly snag proofed? (Y/NA) Required if less than 500' water depth.	NA						
262	If sand bags used, slope is 3/1 (Y/NA)	NA						
263	If sand bags used, 3' coverage required (Y/NA)	NA						
264								
265	<b>Surface Tie-in Data</b>							
266	Does pipeline tie directly into another pipeline at a surface location? (Y/N)	No						
267	Segment number of pipeline being tied in to (SN/NA)	NA						
268	MAOP of pipeline being tied in to (MAOP/NA)	NA						
269								
270	<b>Spill Response Plan Data</b>							
271	Type of spill response plan (OSCP/OSRP per NTL 98-30)	OSRP						
272	Date spill plan submitted to MMS							
273	Date spill plan approved (Actual Date or "Pending")							
274								
275	<b>Safety Schematic Information</b>							
276	Pressure source identified? (Well, separator, pump, etc.)	Wells						
277	MSP/MAWP/SIF of source shown? (psig)	7,700						
278	Origin/destination specification breaks shown on schematic (Y/NA)	Yes						
279	Receiving segment number noted? (Segment Number or NA)	NA						
280	Calculated pipeline MAOP (psig)	Varies-refer to application						
281	Operator responsibility transfer point shown? (Yes/NA)	NA						
282								
283								
284	<b>Collapse Information (Deepwater Pipelines Only)</b>							
285	Water depth (feet)	8080						
286	External pressure (psig)	3591						
287	Collapse pressure (psig)	9658						
288	Safety factor	2.69						
289	Collapse calculations are required. (Attached/NA)	Attached						
290								
291	<b>Safety Design Review</b>							
292	<b>Pipeline Origin</b>							
293	PSHL required at departing end of pipeline (Confirm Yes)	Yes						
294	PSHL must be downstream of choke and/or flow restrictions (Confirm Yes)	Yes						
295	For a well, if MSP > MAOP, a redundant PSH and independent SDVs required (Confirm Yes)	NA						
296	For production equipment, if MSP > MAOP, a redundant PSH with independent SDV is required	NA						
297	or a vented PSV is required (Confirm Yes/NA)	NA						
298	If bi-directional flow, SDV required (Confirm Yes/NA)	Yes						
299	If pig trap present, safety equipment can not be bypassed (Confirm True)	NA						
300	If pump on line, must be consistent with API RP 14C A7 (Confirm Yes/NA)	NA						
301	<b>Pipeline Destination</b>							
302	If production facility and uni-directional flow, SDV and FSV required (Confirm Yes/NA)	MA						
303	If production facility and bi-directional flow, SDV and PSHL required (Confirm Yes/NA)	Yes						

	A	B	C	D	E	F	G	H
303	If subsea tie-in and uni-directional flow, FSV and block valve required (Confirm Yes/NA)	NA						
304	If subsea tie-in and bi-directional flow, block valve required (Confirm Yes/NA)	MA						
305	If gas lift or water injection flowline on unmanned platform, FSV required (Confirm Yes/NA)	MA						
306	If gas lift or water injection flowline on manned platform, SDV required (Confirm Yes/NA)	MA						
307	If crossover platform (pipeline does not receive production), SDV required at boarding point and PSHL required at departing point (Confirm Yes/NA)	MA						
308	If crossover platform is non-manned and non-production, FSV required (Confirm Yes/NA)	MA						
309								
310	<b>Departure Data</b>							
311	Waiver from NIT 98-20 (barring of hazards) requested? (Y/N)	Yes						
312	Other departures requested? (Y/N)	Yes						
313	If yes, specify.	API 1111 For Collapse Resistance						
314								
315								
316								
317								
318								
319								
320								
321								
322								
323								
324	<b>Do Not Enter Data Below This Line -</b>							
325								
326	<b>PIPELINE MASTER ENTRY SHEET</b>							
327	Name		MMS Engineer entry					
328	Date		MMS Engineer entry					
329	Segment Number		MMS Engineer entry					
330	Right-of-Way Number		MMS Engineer entry					
331	Right-of-Way Permittee							
332	Right-of-Way Permittee Code							
333	Operator	Anadarko Petroleum Corporation						
334	Operator Code	00981						
335	Approval Code	Right-of-Way						
336	Portly Code	8 5/8						
337	Pipe Size		MMS Engineer entry					
338	Product Code		MMS Engineer entry					
339								
340	<b>ORIGIN</b>							
341	Facility Type	Subsea Manifold						
342	Identifier	NA						
343	Area	Desoto Canyon						
344	Block	621						
345	Lease	OCS-G-23529						
346								
347	<b>DESTINATION</b>							
348	Facility Type	Platform						
349	Identifier	Proposed						
350	Area	Mississippi Canyon						
351	Block	920						

	A	B	C	D	E	F	G	H
352	Lease	Open						
353								
354	OCS Segment Length	134,514						
355	State + Federal Pipeline Length	Gas						
356	Cathodic Code	Aluminum						
357	Cathodic Life Time (Years)	7913	MMS Engineer entry					
358	Minimum Water Depth (feet)	8080						
359	Maximum Water Depth (feet)							
360								
361	Buried Designator Flag	N						
362	Bi-directional Flag	Yes						
363	Alternate Service	Yes						
364	Recv Segment No. (Sub-surface)	NA						
365	Recv MAOP	NA						
366	Assigned MAOP		MMS Engineer entry					
367	Line Status Code	Proposed						
368	Right-of-Way Status Code	Pending						
369								
370	Comments		MMS Engineer entry					